SHAMSIYEV, A.Sh. [deceased]; DUBINETS, P.G.

Investigation of the refraction of some inorganic complex compounds of platinum, cobalt and chromium. Report No.3: Refractometric effect of hydroxo reactions. Trudy SAGU no.134:51-56 '58. (MIRA 12:4)
(Complex compounds) (Refractive index)

68262

5.2620

SOV/81-59-10-33952

Translation from: Referativnyy zhurnal. Khimiya, 1959, Nr 10, pp 19-20 (USSR)

AUTHORS: Shamsiyev, A.Sh., Dubinets, P.G. (Communication III); Shamsiyev, A.Sh., Provorchenko, L.I. (Communication IV)

TITLE: The Investigation of the Refraction of Some Inorganic Complex Compounds of Platinum, Cobalt and Chromium. Communication III. The Refractometric Effect of the Hydroxy-Reaction. Communication IV. The Refractometric Stability Characteristic of Aqueous Solutions of Complex Trivalent Cobalt Compounds

PERIODICAL: Tr. Sredneaz. un-ta, 1958, Nr 84, pp 51-56, 57-62

ABSTRACT: III. For explaining the relative stability of complex ions $[Co(NH_3)_5OH]^{2+}$ (I) and $[Co(NH_3)_5H_2O]^{3+}$ (II) the refraction indices of an aqueous solution of the salts $[Co(NH_3)_5H_2O]Cl_3$ (III) and $[Co(NH_3)_5OH]Cl_2$ (IV) were measured at 20°C and the values of the molecular refractions R were calculated. For III R = 55.09, for IV R = 47.92. R of the ions I and II have been calculated by subtracting R of the Cl atoms from the obtained values. For II R = 27.88, for I R = 29.78. From this fact a higher stability of the ion of I is concluded. The calculation of R for $[Co(NH_3)_5Cl]^{2+}$ produced the value 28.61,

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68262

SOV/81-59-10-33952

The Investigation of the Refraction of Some Inorganic Complex Compounds of Platinum, Cobalt and Chromium. Communication III. The Refractometric Effect of the Hydroxy-Reaction. Communication IV. The Refractometric Stability Characteristic of Aqueous Solutions of Complex Trivalent Cobalt Compounds

which shows the stability of the latter ion being similar to the stability of the ion of I. IV. The refraction indices have been measured and the values of the molecular refractions R of the following compounds have been calculated by Lorentz-Lorenz' formula (in parentheses the values of R are cited): $[Co(NH_3)_6]Cl_3$ (77.51), $[Co(NH_3)_5NO_2]Cl_2$ (82.15), $[Co(NH_3)_4(NO_2)_2]Cl$ (86.67), $[Co(NH_3)(NO_2)_3]$ (79.33), $[Co(NH_3)_2(NO_2)_4]$ (97.59), $[Co(NO_2)_6]Na_3$ (103.31). Based on these values the R's of the corresponding complex ions have been calculated by subtracting the sum of the atomic refractions of the atoms of the outer sphere. R of the ions and consequently also their stability increases with an increase in the number of NO_2 groups in the inner sphere. Communication II see Tr. Sredneaz. un-ta, 1952, Nr 33.

E. Byutner

Card 2/2

DUBINETS, V.D., inzhener.

Installation and use of scrubbers. Elek.sta. 27 no.7:49 J1 '56. (MLRA 9:10)

(Scrubber (Chemical technology))

Dubinets, V.P.

AUTHOR: Goldenfarb, F.N. and Dubinets, V.P., Engineers.

TITLE: Construction of the boilers TP-230-B and TP-170-B in the form of pre-assembled blocks (Konstruktsii blochnykh kotlov TP-230-B i TP-170-B).

PERIODICAL: "Energomashinostroenie" (Power Machinery Construction), 1957, No. 3, pp. 1 - 6, (U.S.S.R.)

ABSTRACT: The Taganrog Boiler Works worked out projects of steam boilers of 230 and 170 t/h capacity of steam of 100 atm. with a super-heating temperature of 510 °C, which are specially designed for manufacture and delivery in the form of large pre-assembled blocks. The sub-division of the boilers into blocks is indicated diagrammatically in Fig. 1. The screen surfaces consist of 14 blocks for the boiler, TP-230 and of 12 blocks for the boiler, TP-170. The side screens of both boilers consist of 3 blocks each and the front and the rear screens consist of 4 blocks for the boiler, TP-230 and of 3 equal blocks for TP-170. All the blocks are delivered in the form of panels of about 2.5 m wide and about 26 m long, each consisting of a certain number of heating tubes, bottom and top chambers etc., as shown in Fig. 2. The average weight of the block without packing materials is about 13 tons. A brief description of the design and of the general features of the boiler TP-230-B is given; it is of the single drum type and a drawing of the general view of the boiler is given

Construction of the boilers TP-230-B and TP-170-B in the form of pre-assembled blocks. (Cont.)

in Fig. 4. Fig. 3 shows the convection super-heater block. Fig. 5 shows the design of the injection nozzle for cooling the super-heated steam and Fig. 6 shows, diagrammatically, the arrangement of the temperature regulation of the super-heated steam. The main design and calculation data are summarised in a table on p. 6, listing values for 3 types of coal. The total weight of the entire boiler is 1 110 tons, i.e. about 140 tons heavier than currently-manufactured boilers of the same type. This additional weight is attributed to the following factors: the temperature of the outflow flue gases was reduced from 160 to 130 °C and, for that purpose, it was necessary to increase the surfaces of the economiser from 2 590 to 3 045 m^2; reduction of the gas temperature at the exit from the combustion space was effected for reducing the slagging of the surfaces inside the combustion space and this involved an increase of the combustion space and, consequently, also of all the screens; the increase in weight of the individual heating surfaces also led to an increase in the weight of the necessary framework; the execution of all the surfaces to make them suitable for assembly and transportation in the form of blocks also involved additional consumption of metal. The experience has shown that the total labour content in the factory increased

Construction of the boilers TP-230-B and TP-170-B in the form of pre-assembled blocks. (Cont.) 341

from 55 500 standard man hours to about 95 000 standard man hours, as a result of pre-assembly into blocks, i.e. the pre-assembly, including the special packing arrangements for transportation in the form of pre-assembled blocks, required about 32 000 standard man hours.

1 table, 6 figures (line drawing)

DUBINEVICH, B. M.

"Methods of Estimating Loose Smut Infection," Selektsiia i Semenovodstvo, vol. 14, no. 10, 1947, pp. 66-67. 61.9 Se5

So: SIRA - S1 - 90-53, 15 Dec. 1953

DURICHKOVICH, B. K.

"Disinfection of Lentil Seeds with Granosan," Sel'khozlit i Semenovodstvo, vol. 18, no. 10, 1951, p. 79. 61.9 Se5

So: SIRA -S1-90-53, 15 Dec. 1953

DUBINEVICH, B.N.

"Disinfecting Seeds of High-grade Barley Against Smut," Selektsiia i Semenovodstvo, vol. 19, no. 10, 1952, pp. 73-75. 61.9 Se5

So: SIRA- S1-90-53, 15 Dec 1953

13608* (Treatment of Buckwheat Seeds With Granosan Before Sowing.) Protravlivanie semian grechikhi granozanom pered posevom. B. N. Dublinovich. *Zemledelie*, v. 2, no. 3, Mar. 1954, p. 106-107.

Results of 3 yr. test with growth regulators. Tables.

DUBINEVICH, B. N., starshiy nauchnyy sotrudnik

Buckwheat diseases. Zashch. rast. ot vred. i bol. 6 no.6: 25-26 Je '61. (MIRA 16:4)

1. Selektsionnaya stantsiya Starchenkovskogo rayona, Kiyevskoy obl.

(Kiev Province—Buckwheat—Diseases and pests)
(Kiev Province—Fungi, Phytopathogenic)

POMAZKOV, Yu.I., mladshiy nauchnyy sotrudnik; DUBINEVICH, B.N., starshiy nauchnyy sotrudnik (Mironovka, Kiyevskoy obl.); BLAGOVESHCHENSKAYA, V.S., agronom; BUGAYEV, I.D.; KULESHOV, L.A.; SHEREMET, I.V.; KONDAKOV, N.

Following up our articles. Zashch. rast. ot vred. i bol. 7 no.11: 18-19 N '62. (MIRA 16:1)

1. Institut sadovodstva nechernozemnoy polosy (for Pomazkov). 2. Pochinkovskoye territorial'noye proizvodstvennoye upravleniye, Gor'kovskaya oblast' (for Blagoveshchenskaya). 3. Starshiy agronom Shatrovskogo otryada po bor'be s vreditelyami i boleznyami sel'skokhozyaystvennykh rasteniy (for Bugayev). 4. Nachal'nik Gomel'skogo otryada po bor'be s vreditelyami i boleznyami sel'skokhozyaystvennykh rasteniy (for Kuleshov). 5. Agronom po zashchite rasteniy sel'skokhozyaystvennoy arteli imeni Frunze, Kupenskogo rayona, Khar'kovskoy oblasti (for Sheremet). 6. Nachal'nik Chuvashskoy respublikanskoy stantsii zashchity rasteniy (for Kondakov).

DUBINEVICH, B.N., starshiy nauchnyy sotrudnik

Thermal disinfection of seeds. Zashch. rast. ot vred. i bol. 8 no.12:27 D '63. (MIRA 17:3)

1. Mironovskaya selektsionno-opytnaya stantsiya, Kiyevskaya obl.

DUBINEVICH, B.N. starshiy nauchnyy sotrudnik

Effectiveness of the disinfection of pea seeds. Zashch. rast. ot vred. i bol. 9 no.12:14-15 '64. (MIRA 18:4)

1. Mironovskaya selektsionno-opytnaya stantsiya Vsesoyuznogo instituta kukuruzy, Kiyevskaya oblast'.

DUBININ, A. (Moskva); ANDREYEV, B. (Leningrad); ADESTOV, G. (Gor'kiy); PAVLOV, I. (Moskovskaya obl., st. TSaritsyno); MEMBAYEV, E. (Leningrad); SUKHININ, V. (Moskva); ATAMANOV, N. (Moskovskaya obl.)

Advices of experienced people. Za rul. 20 no.5:18-19 My '62. (MIRA 16:4)

(Motor vehicles)

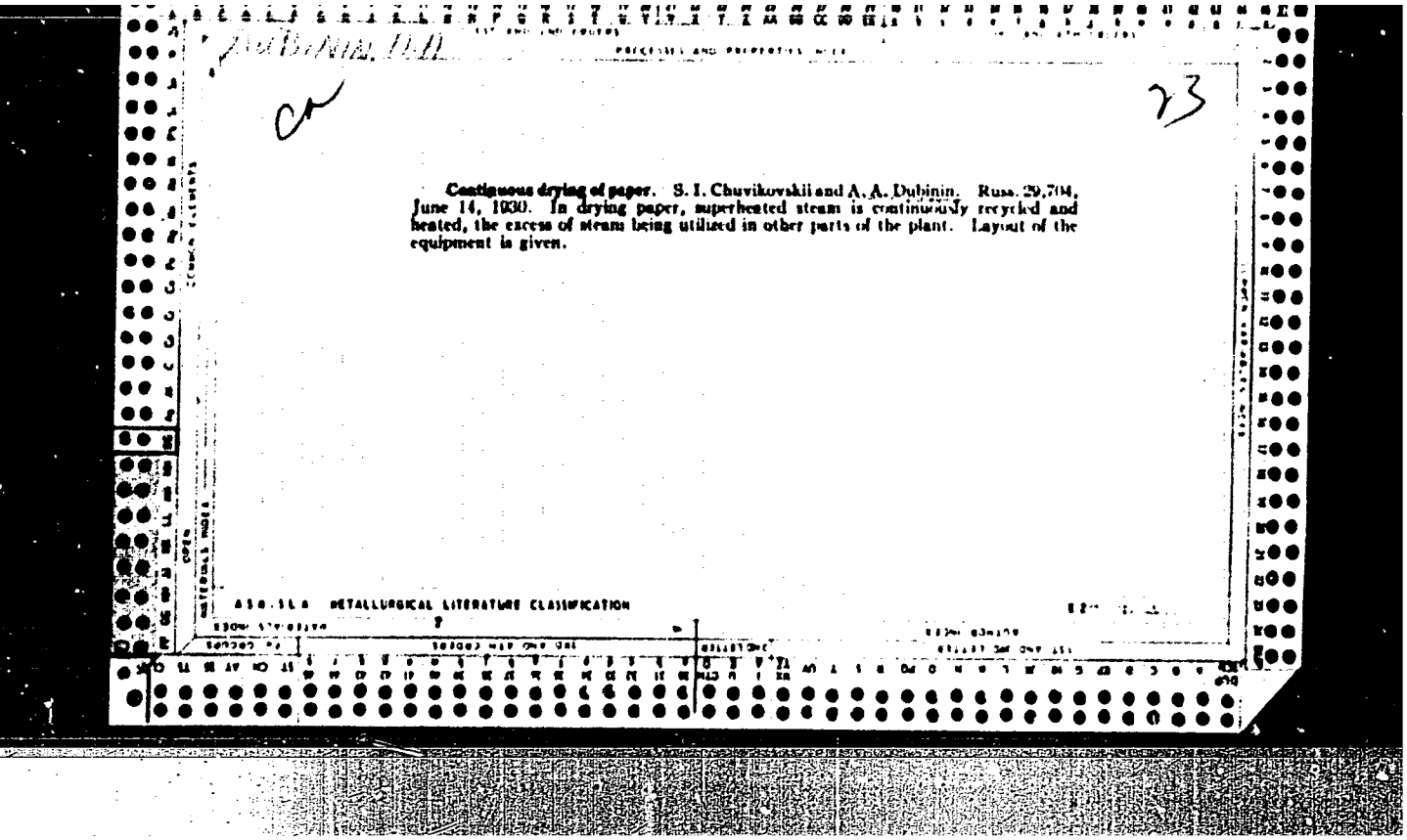
STUPIVTSEV, V.; DUBININ, A.

Mechanized production and placing of curbstones. Avt. dor. 23 no. 12:13 D '60. (MIRA 13:12)

(Curbstones)

DUBININ, A.A.

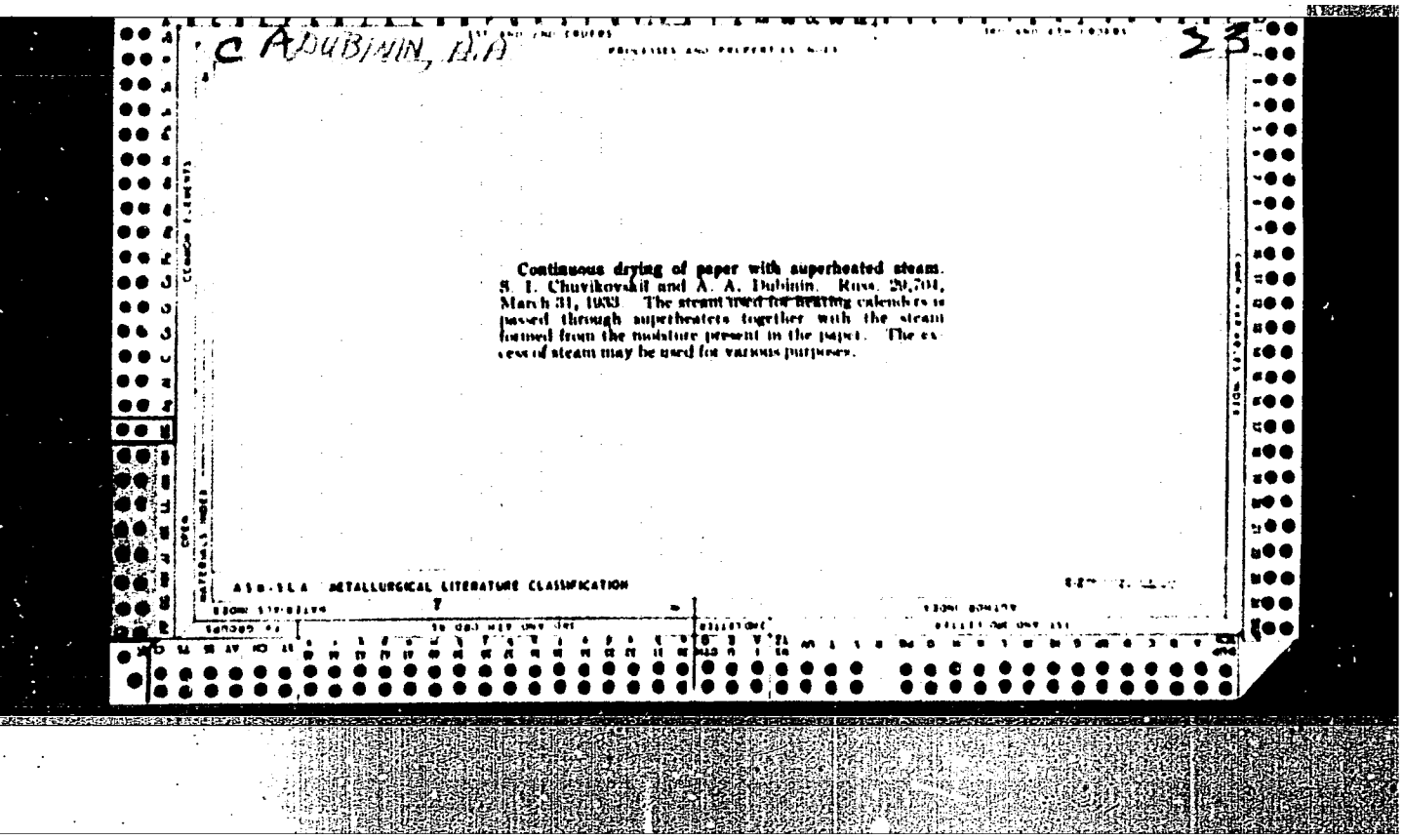
Some electrical and heat properties of silkworm cocoons. Tekst. prom. 17 no.3:21-24 Mr '57. (MLRA 10:4)
(Silkworms)



23

Continuous drying of paper. S. I. Chuvikovskii and A. A. Dubinin. Russ. 29,704, June 14, 1930. In drying paper, superheated steam is continuously recycled and heated, the excess of steam being utilized in other parts of the plant. Layout of the equipment is given.

A50-51A METALLURGICAL LITERATURE CLASSIFICATION



C DUBININ, M.A.

Continuous drying of paper with superheated steam. S. I. Chuvikovskiĭ and A. A. Dubinin. Russ. 20,701, March 31, 1933. The steam used for heating calenders is passed through superheaters together with the steam formed from the moisture present in the paper. The excess of steam may be used for various purposes.

A.S.T.M. METALLURGICAL LITERATURE CLASSIFICATION

633

AUTHORS: Dubinin, A.A. (Eng.) and Roy, F.F. (Eng.).

TITLE: On the question of mechanisation of fuel supply and ash removal in low power boilers. (K voprosu mekhanizatsii toplivopodachi i shlakoudaleniya kotlov maloy moshchnosti).

PERIODICAL: "Teploenergetika" (Thermal Power), Vol.4, No.5, May, 1957, pp. 59-61 (U.S.S.R.)

ABSTRACT: The supply of fuel to small boiler houses can be mechanised by the use of a vertical horizontal skip and self-unloading bucket with a small crusher. This system has been used for boiler houses with an output of 6-12 tons of steam per hour. The fuel is delivered from the store to the boiler house by a mobile loader type M4000. This loader consists of special automobile on the back of which is mounted a lifting device with a capacity of about 2.4 tons lifted to a height of 9 m. On its way from the store to the boiler house the loader passes onto a weigh-bridge to determine the weight of fuel. A sectoral shutter is installed under the crusher and it opens automatically as the bucket comes underneath it. The loaded bucket then passes to the fuel bunkers above the furnaces where it is tipped. When the steam output is less than 6 tons per hour the auto-loader can be fitted with a grab which takes fuel from the store and lifts it directly to the bunker gallery unloading it into the crusher bunker from which it goes by gravity to a furnace. The loader can deliver coal

On the question of mechanisation of fuel supply and ash removal in low power boilers. (Cont.)

at the rate of 4.5 tons per hour from a store 150 m away. This method of fuel delivery is very simple and cheap.

Simple ash removal systems are described. In the first of these a channel filled with water is provided directly under the furnaces forming a water shutter. The ash is removed from this channel by dragging a scraper along it with a winch and rope, the ash being deposited in a small collecting sump. If it is necessary to repair the scraper, screens can be fitted under the outlet apertures of the furnace slag bunkers. In another installation a scraper type conveyor is installed in the water channel. A further arrangement employing low head hydraulic ash washing is also briefly described. This last method is different from the previous two in that there are no wearing parts, it is simple to service and the initial cost is low. 5 figures, no literature references.

Card 2/2

DUBININ, A.A., inzhener; ROY, F.F., inzhener.

Fuel delivery and slag removal mechanization in boilers of small capacity. Teploenergetika 4 no.5:59-61 My '57. (MLRA 10:5)
(Boilers)

SOV/91-58-3-2/28

AUTHORS: Dubinin, A.A., Fridman, M.S., Engineers

TITLE: The Automatic Control of a Small Capacity Boiler Room (Avtomaticheskoye upravleniye kotel'noy maloy moshchnosti)

PERIODICAL: Energetik, 1958, Nr 3, pp 4-5 (USSR)

ABSTRACT: The author presents and explains a design drawn up by the GPI-5, the designing institute for the textile industry, according to which complex mechanization and automation will be introduced into boiler installations. It is said that the automatic regulation of heating processes will be brought about by means of electro-hydraulic regulators of the KRG-EG type of the TsKTI system. A set of regulators needed by a boiler does not cost more than 10,500 rubles. The regulators are produced by the "Il'marine" plant. The designers assume that investment costs will be repaid within 4 or 6 months because of a lower number of workers and higher boiler efficiency (5 to 12 %). The authors recommend quicker pro-

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[redacted]

The Automatic Control of a Small Capacity Boiler Room SOV/91-58-3-2/28

duction of the special equipment needed for the purpose.
There is 1 block diagram.

Card 2/2

DUBININ, A.A.; ARONOV, I.Z., starshiy nauchnyy sotrudnik, kand. tekhn. nauk

Utilization of waste heat from the exhaust gases of boiler rooms for the contact heating of water. Tekst. prom. 23 no.6:74-77 Je '63. (MIRA 16:7)

1. Nachal'nik teplotekhnicheskogo otdela Ukrainskogo gosudarstvennogo instituta po proyektirovaniyu predpriyatiy legkoy promyshlennosti (for Dubinin). 2. Nauchno-issledovatel'skiy institut sanitarnoy tekhniki Akademii stroitel'stva i arkhitektury UkrSSR (for Aronov).

(Boilers) (Waste heat)
(Textile industry--Equipment and supplies)

L 05053-67 EWT(m) JR/QD
ACC NR: AT6027917 SOURCE CODE: UR/0000/66/000/000/0005/0021

AUTHOR: Orlov, V. V.; Abagyan, A. A.; Fedorenko, R. P.; Dubinin, A. A.; Suvorov, A. P.

ORG: None

45
B+1

TITLE: Optimizing the physical characteristics of radiation shielding 19

SOURCE: Voprosy fiziki zashchity reaktorov (Problems in physics of reactor shielding); sbornik statey, no. 2. Moscow, Atomizdat, 1966, 5-21

TOPIC TAGS: radiation shielding, variational problem, successive approximation, perturbation theory, REACTOR SHIELDING

ABSTRACT: The authors consider the problem of selecting the ratio of components in reactor shielding to give minimum weight or overall dimensions for a given reduction in radiation intensity or to achieve a minimum radiation dose for given shielding weight or dimensions. The problem is formulated as a variational problem on the optimum of some quantity when given conditions are imposed on other quantities. The various approaches to solution of the problem given in the literature are briefly reviewed. The physical characteristics of the shielding (neutron and gamma doses, heat release, weight, etc.) are considered within the framework of perturbation theory and the concept of functions of effectiveness of shielding materials is intro-

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ACC NR: AT6027917

duced, i. e. functions which give information on the changes in various quantities under given conditions which result from some small change in the densities of the materials. The classical methods of variational calculus are used for determining optimum conditions for functionals representing the various physical characteristics of the shielding. The method of successive approximations is used for solving the problem of optimizing the distribution of shielding components in the general case. An example is given illustrating application of the proposed method. Orig. art. has: 9 figures, 31 formulas.

SUB CODE: 18/ SUBM DATE: 12Jan66/ ORIG REF: 014/ OTH REF: 002

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L 05057-67 EWT(m)/EWP(t)/ETI IJP(c) JD/HW/JR/GD

ACC NR: AT6027932 SOURCE CODE: UR/0000/66/000/000/0164/0169

AUTHOR: Abagyan, A. A.; Belov, B. P.; Kazanskiy, Yu. A.; Popov, V. I.; Fadeyev, I. A.; Dubinin, A. A.

ORG: None

TITLE: On the function of effectiveness of shielding materials with respect to capture gamma-radiation

SOURCE: Voprosy fiziki zashchity reaktorov (Problems in physics of reactor shielding); sbornik statey, no. 2. Moscow, Atomizdat, 1966, 164-169

TOPIC TAGS: radiation shielding, radiative capture, gamma radiation

ABSTRACT: The authors compare experimental and theoretical data on the function of effectiveness of shielding materials with respect to capture γ-radiation in nickel. The function of effectiveness is expressed as a linear combination of quantities of the type h_{Ap}

$$f(x) = h_{Ap} - \frac{\rho_B}{\rho_A} h_{Bp}$$

where ρ_A and ρ_B represent the concentrations of the respective components in the shield-

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ing materials. This function shows the change which takes place in the functional $J_{n,\gamma}$ when a unit of substance B is substituted for a unit of substance A where

$$J_{n,\gamma} = \sum_i \beta_i k_i \iiint \frac{\Phi(r_s, \mu, E)}{4\pi r_i^2} \Sigma_{n,\gamma}(r_s, E) e^{-\int_{r_s}^{M} \mu^I(r) dr} B_i d\mu dE dV$$

describes the production and yield of capture γ-radiation. In this formula $\Phi(r_s, \mu, E)$ is neutron flux; $\Sigma_{n,\gamma}(r_s, E)$ is the macroscopic cross section of radiation neutron capture; β_i is the yield of γ-quanta of given energy E_i per captured neutron; k_i is the dose created by a unit flux of γ-quanta of energy E_i; $\mu^I(r)$ is the total coefficient of linear absorption of γ-quanta of initial energy E_i; B_i is the dose factor for accumulation of γ-quanta of initial energy E_i. The function $f(x)$ was experimentally studied by introducing a hydrogen-containing substance into a nickel screen made up of sheets measuring 80×80×0.8 cm for an overall thickness of 25 cm. This specimen was surrounded by a neutron shield for reducing the background. A single-crystal scintillation gamma-spectrometer with a crystal of sodium iodide was used for measuring the number of capture γ-quanta with an energy of greater than 7 Mev produced by radiation capture of neutrons in the nickel. Curves are given showing neutron hazard functions with respect to capture γ-radiation. These functions describe the contribution of neutrons to the stream of γ-quanta behind the screen as a function of the neutron energy and inlet coordinate. The results show that the addition of hydrogen-containing material through nearly the entire thickness of the nickel layer increases the inten-

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ACC NR: AT6027932

sity of capture γ-radiation behind the screen. An exception to this rule is the first 6 cm of nickel where the neutron hazard function for low energy particles is less than the function for high energy neutrons so that a good moderator placed at these points reduces the intensity of capture γ-quanta behind the screen. The authors thank V. V. Orlov, V. Ya. Pupko and S. G. Tsypin for interest in the work. Orig. art. has: 4 figures, 17 formulas.

SUB CODE: 18/ SUBM DATE: 12Jan66/ ORIG REF: 005

Card 3/3

DUBININ, A.A., inzh., red.

[Provisional time norms for design work] Vremennye normy prodolzhitel'nosti proektirovaniia (SN 283-64). Moskva, Stroiizdat, 1964. 145 p. (MIRA 18:1)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy komitet po delam stroitel'stva.

DUBININ, A. D.

Trenie i iznos v detaliakh mashin [Friction and wear-and-tear of machine parts]. Kiev, Mashgiz, 1952. 136 p.

SO: Monthly List of Russian Accessions. Vol. 6 No. 7 October 1953

DUBININ, Aleksandr Dmitriyevich, KOMPANIYETS, A.A., inzhener, retsenzent; BUTUZOV, A.I., kandidat tekhnicheskikh nauk, redaktor; RUDENSKIY, Ya.V., tekhnicheskiy redaktor

[Mechanics work methods] Priemy slesarnykh rabot. Izd. 2-oe, dop. Kiev, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1956. 190 p. (MLRA 9:8)
(Machine-shop practice)

DUBININ, A.D.

PHASE I BOOK EXPLOITATION SOV/4837

Bashmakov, Viktor Petrovich, and Aleksandr Dmitriyevich Dubinin

Raschet i proyektirovaniye remennykh i tsepnykh peredach (Calculation and Design of Belt and Chain Drives) Kiyev, Mashgiz, [1959] 127 p. 17,000 copies printed. (Series: Biblioteka konstruktora)

Sponsoring Agency: Nauchno-tekhnicheskoye obshchestvo mashinostroitel'noy promyshlennosti. Kiyevskaya oblastnaya organizatsiya.

Reviewer: V. N. Levinson, Doctor of Technical Sciences, Professor; Ed.: V. S. Radchik, Candidate of Technical Sciences, Docent; Chief Ed. (Southern Department, Mashgiz): V. K. Serdyuk, Engineer; Ed. of Publishing House: G. D. Tynyanyy.

PURPOSE: This book is intended for junior designers.

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Calculation and Design of Belt and Chain Drives SOV/4837

COVERAGE: The author discusses basic principles of designing chain drives and belt drives and describes various design schematics. Sample designs for subassemblies and parts (taking into consideration the working regime and operational conditions) are included. Sample calculations of drives are given, and instructions for the production, assembly, and operation of these drives are presented. No personalities are mentioned. There are 9 references, all Soviet.

TABLE OF CONTENTS:

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DUBININ, Aleksandr Dmitriyevich; KABAL'SKIY, M.M., kand.tekhn.nauk, retsenzent; FURER, P.Ya., red.

[Bench work techniques] Priemy slesarnykh rabot. Izd.2., ispr. i dop. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit. lit-ry, 1960. 316 p. (MIRA 13:5)
(Toolroom practice)

DUBININ, Aleksandr Dmitriyevich; DEKHTYAR, I.Ya., doktor fiziko-matem. nauk, prof., retsenzent; PONYAKO, N.F., doktor fiz.-matem. nauk, prof., red.; SINGOYEVSKIY, K.V., red.; GORNOSTAYPOL'SKAYA, M.S., tekhn. red.

[Theory of the energy friction and wear of machine parts] Energetika treniia i iznosa detalei mashin. Moskva, Mashgiz, 1963. 135 p. (MIRA 16:5)
(Friction) (Mechanical wear)

AZHGIREY, D.G.; DUBININ, A.F.; KOROBOV, V.V.

New data on the Lower Carboniferous stratigraphy of the Zyryanak region in the Altai. Izv. vys. ucheb. zav.; geol. i razv. 6 no.5:3-11 My '65. (MIRA 18:10)

1. Ust'-Kamenogorskiy gornometallurgicheskiy institut.

DUBININ, Aleksandr Iosifovich; FEDYAYEVA, N.A., redaktor; BELICHEVA, M.N., tekhnicheskiy redaktor; KUSH, L.K.

[Loading cargoes onto seagoing vessels anchored offshore unprotected] Gruzovye raboty na otkrytykh reidakh. Moskva, Gos. izd-vo vodnogo transporta, 1954. 153 p. (MLRA 8:1)
(Ships) (Anchorage) (Loading and unloading)

DUBININ, Aleksandr Iosifovich; OLENEV, K.K., redaktor; VOLKOVA, Ye., tekhnicheskiy redaktor.

[Anchorage of seagoing vessels.] IAkornaia stoianka morskikh sudov. Moskva, Izd-vo "Morskoi transport," 1955. 128 p.
(Anchorage) (MLRA 8:8)

BOCHEK, Aleksandr Pavlovich; GRIGOR'YEV, Vissarion Vissarionovich; DUBININ, Aleksandr Iosifovich; MEDVEDEV, Vasiliy Fedorovich; PETROV, Mikhail Kliment'yevich [deceased]; YANKOVICH, Vladimir Nikolayevich; PETIN, M.I., red.; TIKHONOVA, Ye.A., tekhn.red.

[Marine practice] Morskaia praktika. Pod obshchei red.V.N. Iankovicha. Moskva, Izd-vo "Morskoi transport." Pt.2. 1959. 418 p. (MIRA 13:1)
(Navigation)

DUBININ, A.I.

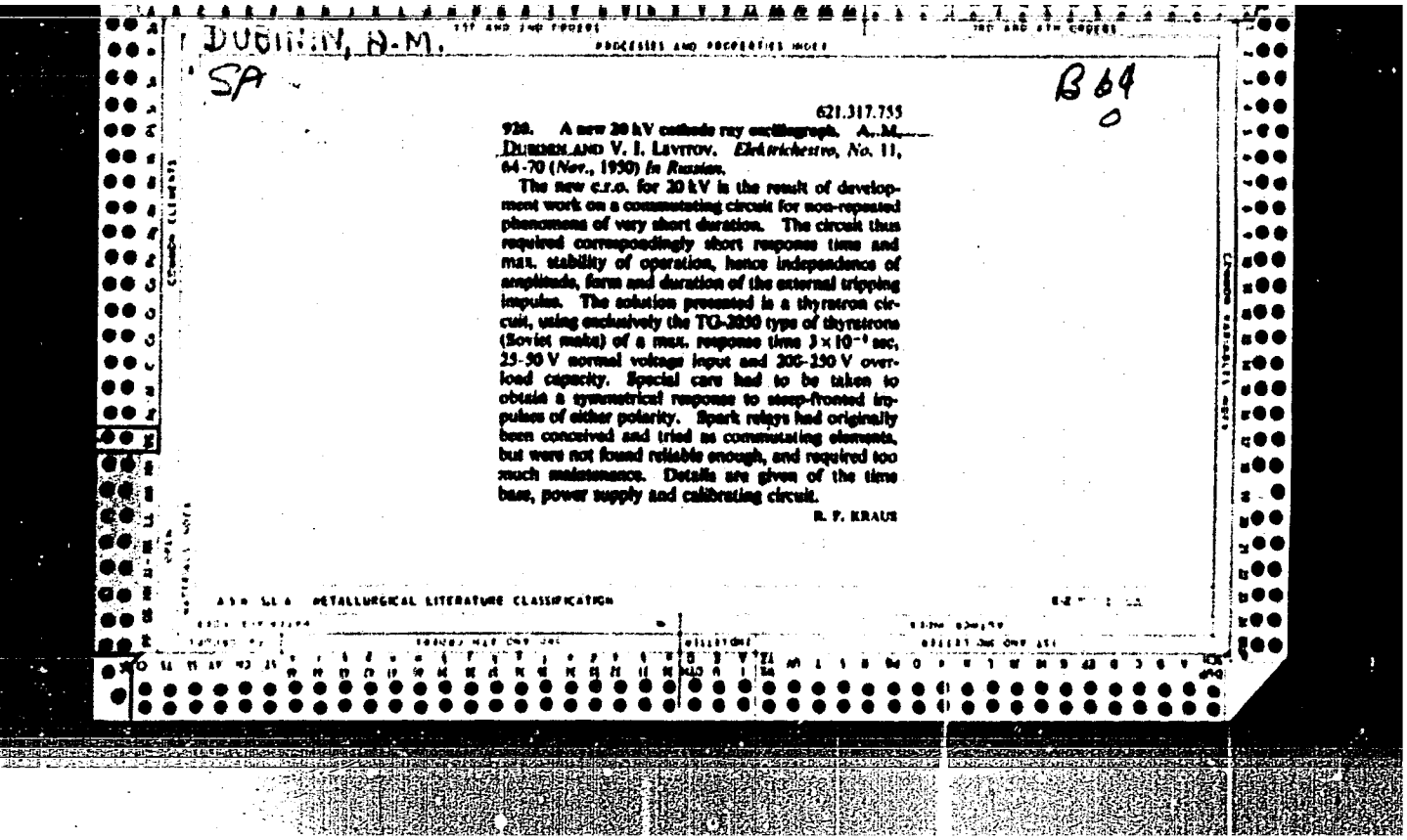
Fifth Antarctic cruise of the diesel-electric ship "Ob'." Inform. biul. Sov. antark. eksp. no.22:7-10 '60. (MIRA 14:5)

1. Kapitan dizel'-elektrokhoda "Ob'."
(Antarctic regions--Russian exploration)

DUBININ, A.I.

"Ob'" at the Peter I Island. Inform. biul. Sov. antark. eksp. no.23:5-9 '60. (MIRA 14:5)

1. Kapitan dizel'-elektrokhoda "Ob'."
(Peter I Island--Discovery and exploration)



DUBININ, A.M.

SA

B64

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621.317.755

920. A new 20 kV cathode ray oscillograph. A. M. DUBININ AND V. I. LEVITOV. *Elektrichestvo*, No. 11, 64-70 (*Nov.*, 1950) *In Russian.*

The new c.r.o. for 20 kV is the result of development work on a commutating circuit for non-repeated phenomena of very short duration. The circuit thus required correspondingly short response time and max. stability of operation, hence independence of amplitude, form and duration of the external tripping impulse. The solution presented is a thyratron circuit, using exclusively the TG-2050 type of thyratrons (Soviet make) of a max. response time 3×10^{-9} sec, 25-50 V normal voltage input and 200-250 V overload capacity. Special care had to be taken to obtain a symmetrical response to steep-fronted impulses of either polarity. Spark relays had originally been conceived and tried as commutating elements, but were not found reliable enough, and required too much maintenance. Details are given of the time base, power supply and calibrating circuit.

B. P. KRAUS

A 5 0 11 A METALLURGICAL LITERATURE CLASSIFICATION

Printing Industry - Accounting

"Analysis of economic operation of enterprises in the Central Administration for Printed Matter (Soiuzpechat')," Reviewed by Kh. Braude, Bukhg. uchet, 11, No. 4, 1952.

Monthly List of Russian Accessions, Library of Congress, July 1952. Unclassified.

DUBININ, A.N., inzhener; KHAZANOVA, S.Z., inzhener.

Replacing soap by detergent powders. Tekst. prom. 17 no.3:43-44 Mr '57. (MLRA 10:4)

1. Nachal'nik moyechnogo tsekha Khar'kovskoy fabriki imeni Manuil'skogo (for Dubinin).
(Woolen and worsted manufacture) (Scouring compounds)

DUBININ, A. P.

"Treatment of Psoriasis with Photosensitized Substances," Vest. venerol. i dermatol., No.1, 1948.

Clinic of Dermato-Venereal Diseases, 1st Moscow Order of Lenin Med. Inst.

DUBININ, A. P.

Tuberculosis

Use of streptomycin in cases of active syphilis and active pulmonary tuberculosis. Vest. ven. i derm. No. 3 1952.

Monthly List of Russian Accessions, Library of Congress October 1952 UNCLASSIFIED

DUBININ, A. S.

"Summary of L.M.Zvyagin's 'Herpes Zoster'(Cold Sore) Simulating an Acute Appendicitis," Khirurgiya, No.12, 1947 and Vest. Venerol. i Dermatol. No.1, 1949

DUBININ, A.P.; PROKOF'YEV, A.D.

Durability of dies for embossing spoons in relief. Kuz.-shtam. proizv. 5 no.4:6-9 Ap '63. (MIRA 16:4)
(Dies (Metalworking)) (Forging)

ALEKSEYEV, G.I., DUBININ, A.Z., LOBOV, V.A.

Oil-and gas-bearing zones in the central and trans-Volga regions.
Geol. nefti Supplement to no. 7:58-65 '58. (MIRA 11:8)
(Volga Valley--Petroleum geology)
(Volga Valley--Gas, Natural--Geology)

SOV/9-59-2-6/16

14(5)

AUTHORS: Dubinin, A.Z. and Ivanov, P.V.

TITLE: Some Data on the Development of Lower Carboniferous Oil-Fields of the Mukhanovskoye Deposit (Nekotoryye dannyye o razrabotke neftyanykh zalezhey nizhnego karbona Mukhanovskogo mestorozhdeniya)

PERIODICAL: Geologiya nefti i gaza, 1959, Nr 2, pp 28-35 (USSR)

ABSTRACT: The Mukhanovskoye oil deposit situated in the Kuybyshev Oblast is associated with terrigenous deposits, formed in the lower stage by clay and aleurolites, and by sandstone in the upper stage. The oil-bearing horizons are associated with the upper stage, consisting of four sandstone layers, placed in a depth range of 2,040 to 2,200 m. Information is given on exploitation drilling in this zone that was started in 1954. A drilling method was developed distinguished by the following basic characteristics: high headway speed and use of clay solutions with low water emission and shearing module; treatment of the well shaft with hydrochloric acid, prior to cementation with expansive cement; high-speed cement lifting with the use of six to eight "TsA-300" pouring machines. Actually drilling is continued simultaneously with the utilization of the pressing

Card 1/2

TKHOSTOV, B.A.; DUBININ, A.Z.; OVANESOV, G.P.; SAVEL'YEV, I.V.

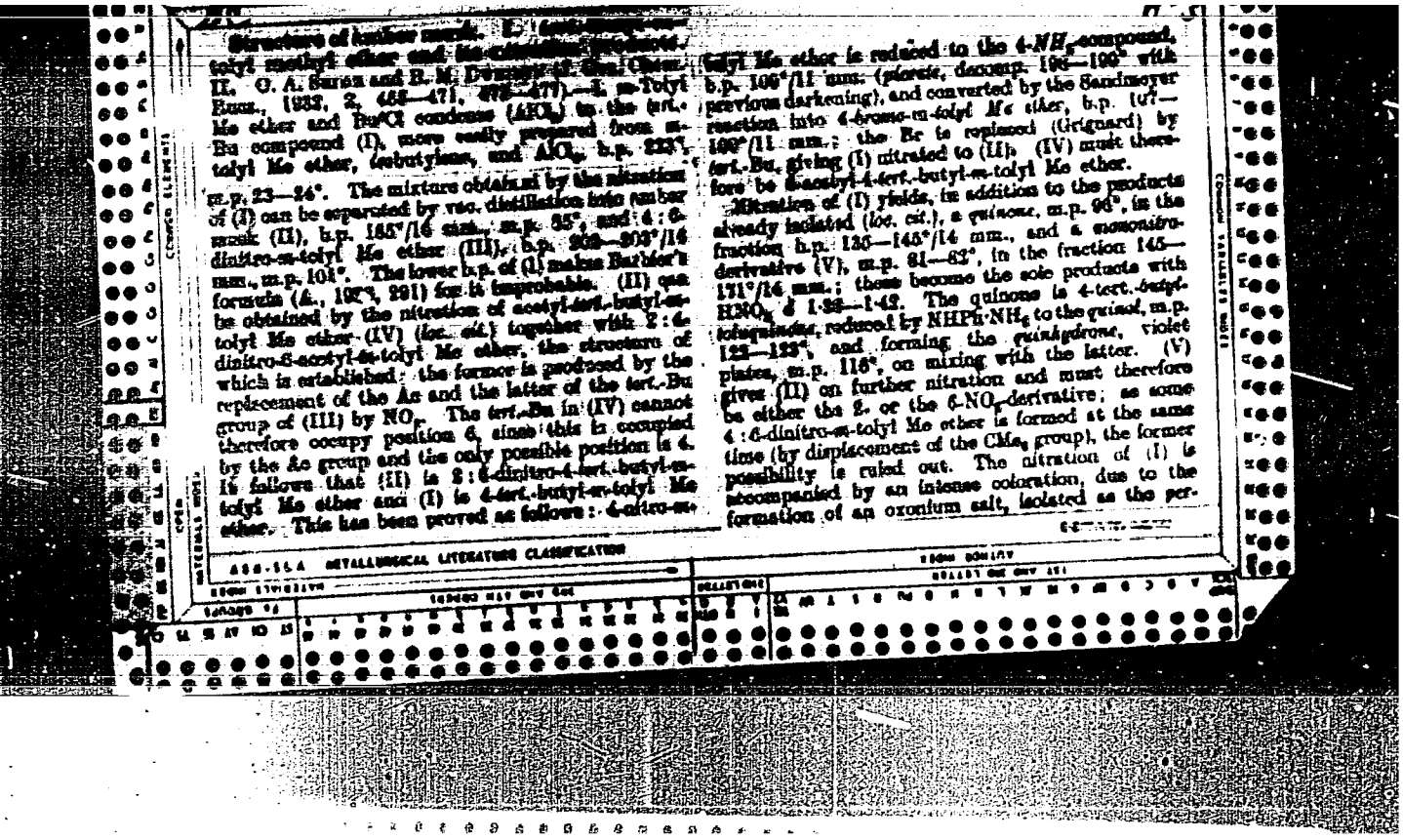
Results of geological prospecting for oil and gas in the R.S.F.S.R. for 1963. Geol. nefti i gaza 8 no.3:1-9 3 Mr '64. (MIRA 17:6)

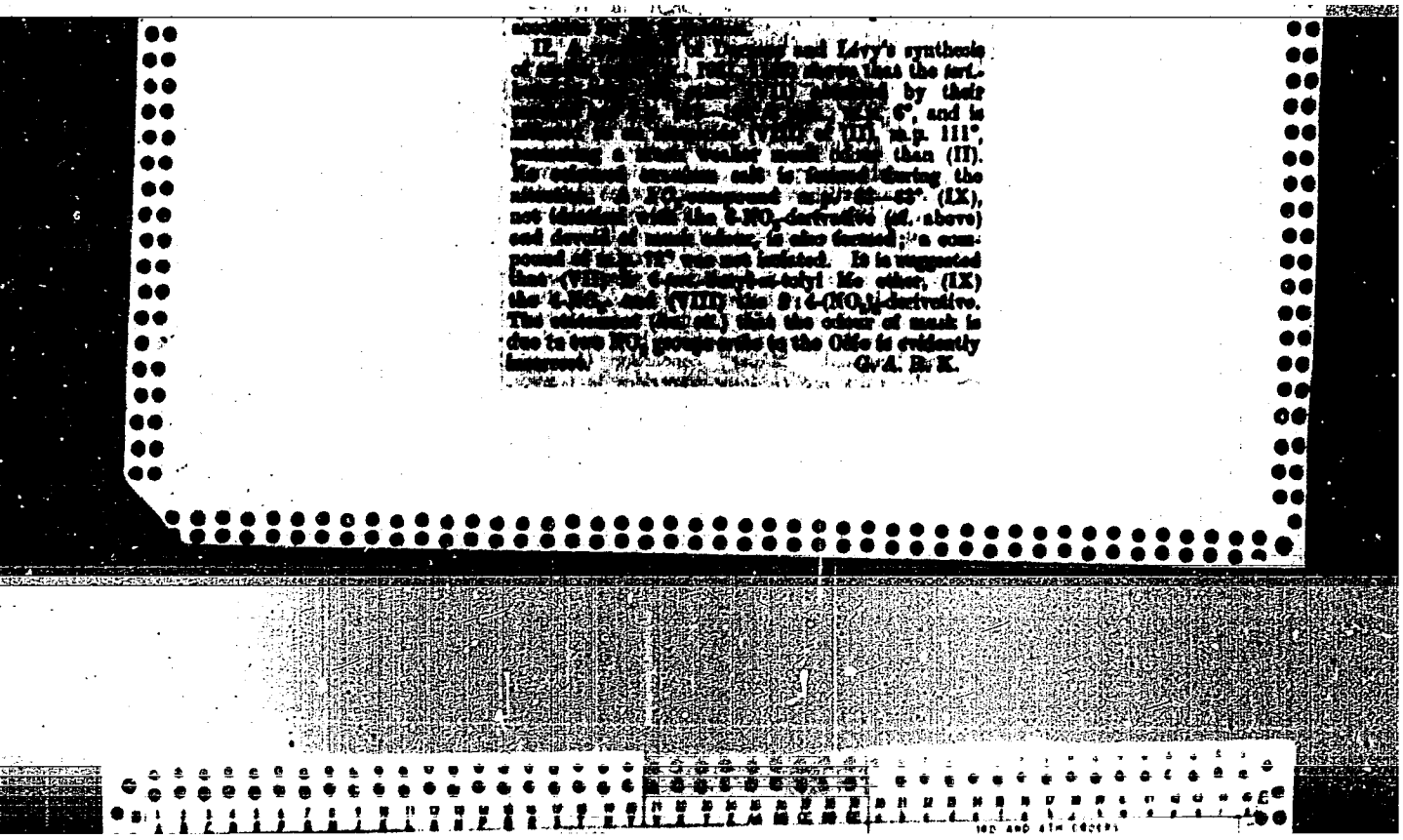
1. Gosplan RSFSR i Vserossiyskiy sovet narodnogo khozyaystva RSFSR.

AYZENSHTADT, G.Ye.-A; DUBININ, A.Z.; YENIKEYEV, P.N.; MAKSIMOV, S.P.; SMIRNOVA, Ye.A.; SOKOLIN, Kh.G.; EVENTOV, Ya.S.; EZDRIN, M.B.; SEYFUL'-MULYUKOV, R.B.

Outlooks of a new oil and gas producing center in the Caspian Lowland and adjacent regions. Geol. nefti i gaza 9 no.1:1-8 Ja '65. (MIRA 18:3)

1. Gosudarstvennyy geologicheskiy komitet SSSR; Vsesoyuznyy neftyanoy nauchno-issledovatel'skiy geologorazvedochnyy institut, Leningrad; Vsesoyuznyy nauchno-issledovatel'skaya geologorazvedochnyy neftyanoy institut, Moskva; Nauchno-issledovatel'skaya laboratoriya geologicheskikh kirteriyev otsenki perspektiv neftegazonosnosti i Nizhnevolzhskiy nauchno-issledovatel'skiy institut geologii i geofiziki.



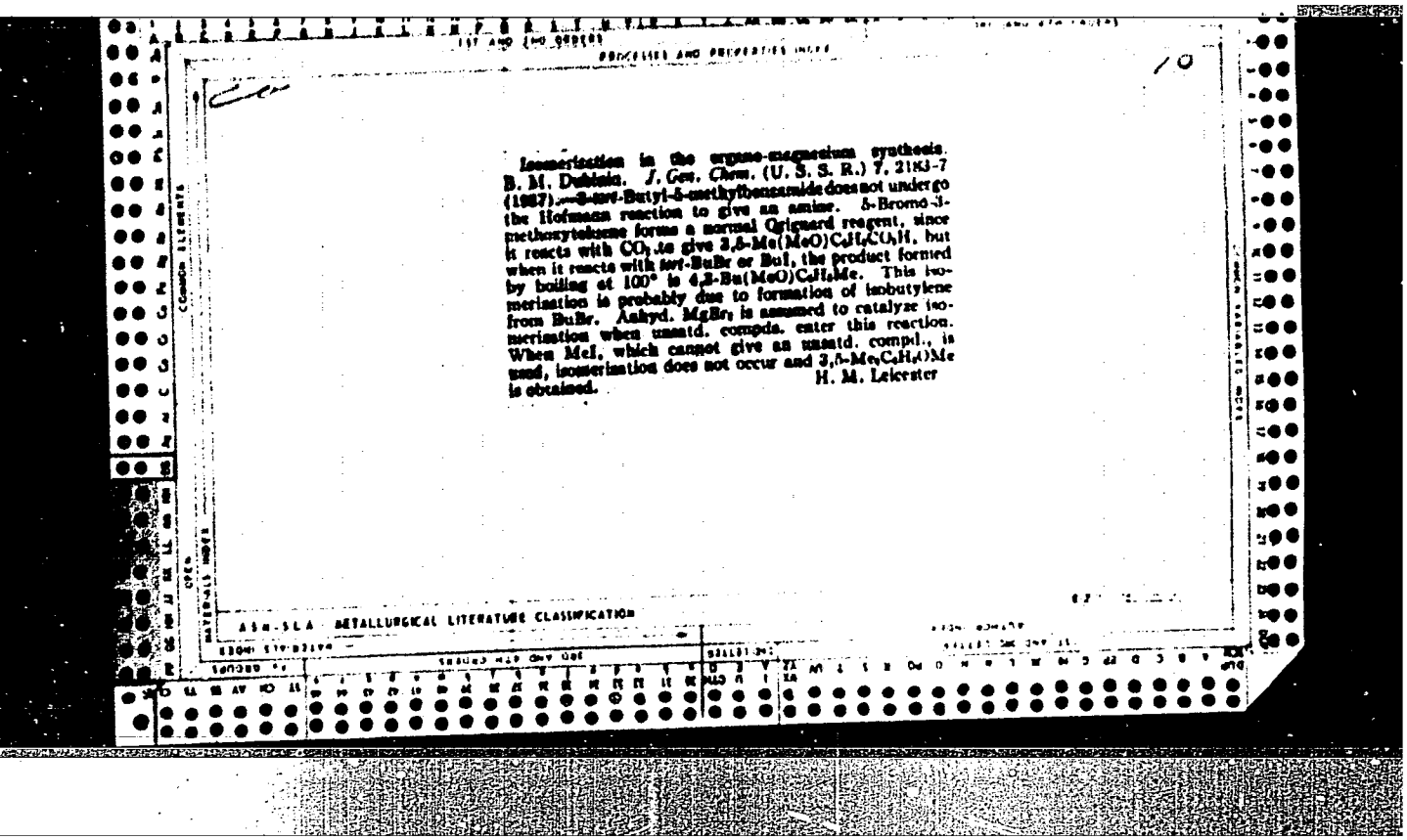


CA 10

PROCESSES AND PROPERTIES INDEX

... series of normal long-chain acids attached to a ...exyl or a cyclopentyl group. I. Cyclohexylvaleric ...d and its derivatives. M. M. Katsnel'son and B. M. Dubinin. *Compt. rend. acad. sci.* (U. R. S. S.) [N. S.], 4, 405-8(1936)(in French).—The synthesis of normal long-chain acids attached to cyclohexyl and cyclopentyl groups was undertaken with a view to detg. the relationship between therapeutic action and chem. structure, such as that existing in the case of chaulmoogric acid, and the structure of natural naphthenic acids. Treating 1 g. *cyclohexylvaleric acid* (I), prepd. according to the method of Chichibabin (*C. A.* 26, 3778), with 1 g. $SOCl_2$ yielded the *acid chloride*, b_{20} 130°, which with dry NH_3 in PhH formed the *amide*, m. 122-3°. The soly. of the Cd salt of I, studied for the purpose of enabling the sepn. of primary naphthenic acids from secondary and tertiary naphthenic acids, was found to be 1.8 parts in 100 parts of aq. soln. Satg. a soln. of I (88.8 g.) in 300 cc. abs. EtOH with dry HCl at 0°, followed by refluxing for 3 hrs., gave 98.4 g. (98%) of *Et cyclohexylvalerate* (II), b_{16} 136-8°. Reduction of II (85 g.) by means of 29 g. Na and 370 cc. EtOH gave 27.8 g. (42.0%) of *cyclohexylamyl alc.*, b_{12} 131-2°; treating the latter (25 g.) with dry HBr to satn., followed by refluxing for 3 hrs., yielded 31.8 g. (92%) of *cyclohexylamyl bromide* (III), b_{13} 124°. The Grignard reagent prepd. from 10 g. III and 1.05 g. Mg in 80 cc. dry EtOH, upon treatment with 3.0 g. of furfural, failed to give the corresponding furfurylcarbinol, but yielded 5.1 g. (77%) *1,10-dicyclohexyldecane*, b_{2} 135-7°, m. 34° from EtOH. John F. Lontz

ASO-SLA METALLURGICAL LITERATURE CLASSIFICATION



Isomerization in the organo-magnesium synthesis. B. M. Dubinin. *J. Gen. Chem.* (U. S. S. R.) 7, 2183-7 (1937).—δ-*tert*-Butyl-δ-methylheptanamide does not undergo the Hofmann reaction to give an amine. δ-Bromo-3-methoxytoluene forms a normal Grignard reagent, since it reacts with CO_2 to give 2,5-Me(MeO)$C_6H_3CO_2H$, but when it reacts with *tert*-BuBr or BuI, the product formed by boiling at 100° is 4,2-Bu(MeO)C_6H_3Me. This isomerization is probably due to formation of isobutylene from BuBr. Anhyd. $MgBr_2$ is assumed to catalyze isomerization when unsatd. compds. enter this reaction. When MeI, which cannot give an unsatd. compd., is used, isomerization does not occur and 3,5-$Me_2C_6H_4$(O)Me is obtained.

H. M. Leicester

1ST AND 2ND ORDERS

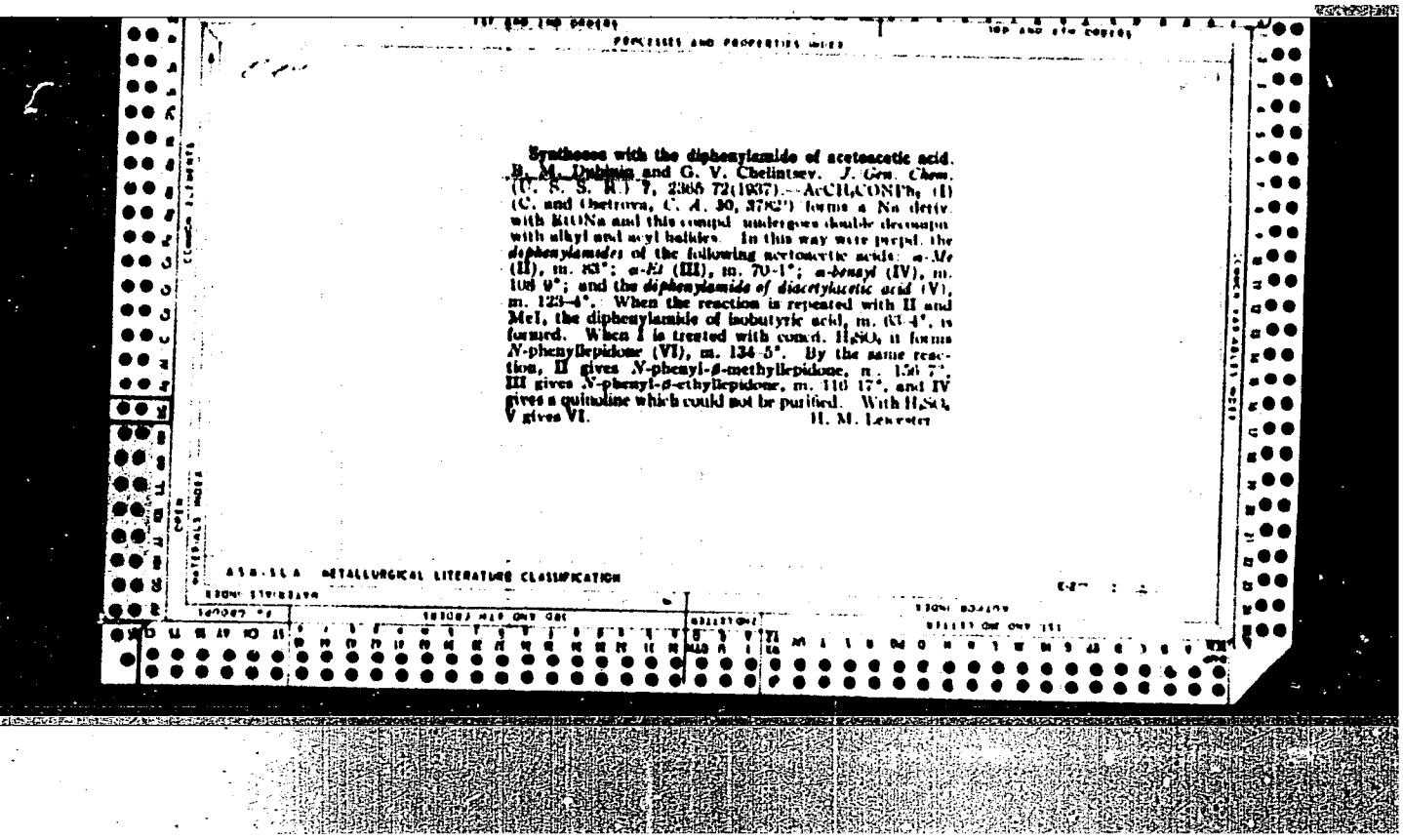
PROCESSES AND PROPERTIES INDEX

Ca

The addition of the formyl group to carbon by the method of amide condensation. G. V. Chelintsev and B. M. Dubinin. *J. Gen. Chem.* (U. S. S. R.) 7, 2360-11 (1937); cf. *C. A.* 31, 1350.—HCONPh, reacts with equiv. amts. of NaOEt and Me_2CO or MeCOPh to give good yields of formylacetone or formylacetophenone. The yield of formylcamphor by this method is lower.

H. M. Leicester

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



Syntheses with the diphenylamide of acetoacetic acid. B. M. Dubinin and G. V. Chelintsev. *J. Gen. Chem.* (U. S. S. R.) 7, 2366-72(1937).—$AcCH_2CONPh_2$ (I) (C. and Chetrova, *C. A.* 30, 3782[2]) forms a Na deriv. with EtONa and this compd. undergoes double decompn. with alkyl and acyl halides. In this way were prepd. the *diphenylamides* of the following acetoacetic acids: *α-Me* (II), m. 83°; *α-Et* (III), m. 70-1°; *α-benzyl* (IV), m. 108.9°; and the *diphenylamide of diacetylacetic acid* (V), m. 123-4°. When the reaction is repeated with II and MeI, the diphenylamide of isobutyric acid, m. 63-4°, is formed. When I is treated with concd. H_2SO_4 it forms *N*-phenyllepidone (VI), m. 134-5°. By the same reaction, II gives *N*-phenyl-*β*-methyllepidone, m. 158-7°, III gives *N*-phenyl-*β*-ethyllepidone, m. 116-17°, and IV gives a quinoline which could not be purified. With H_2SO_4 V gives VI.

H. M. Leicester

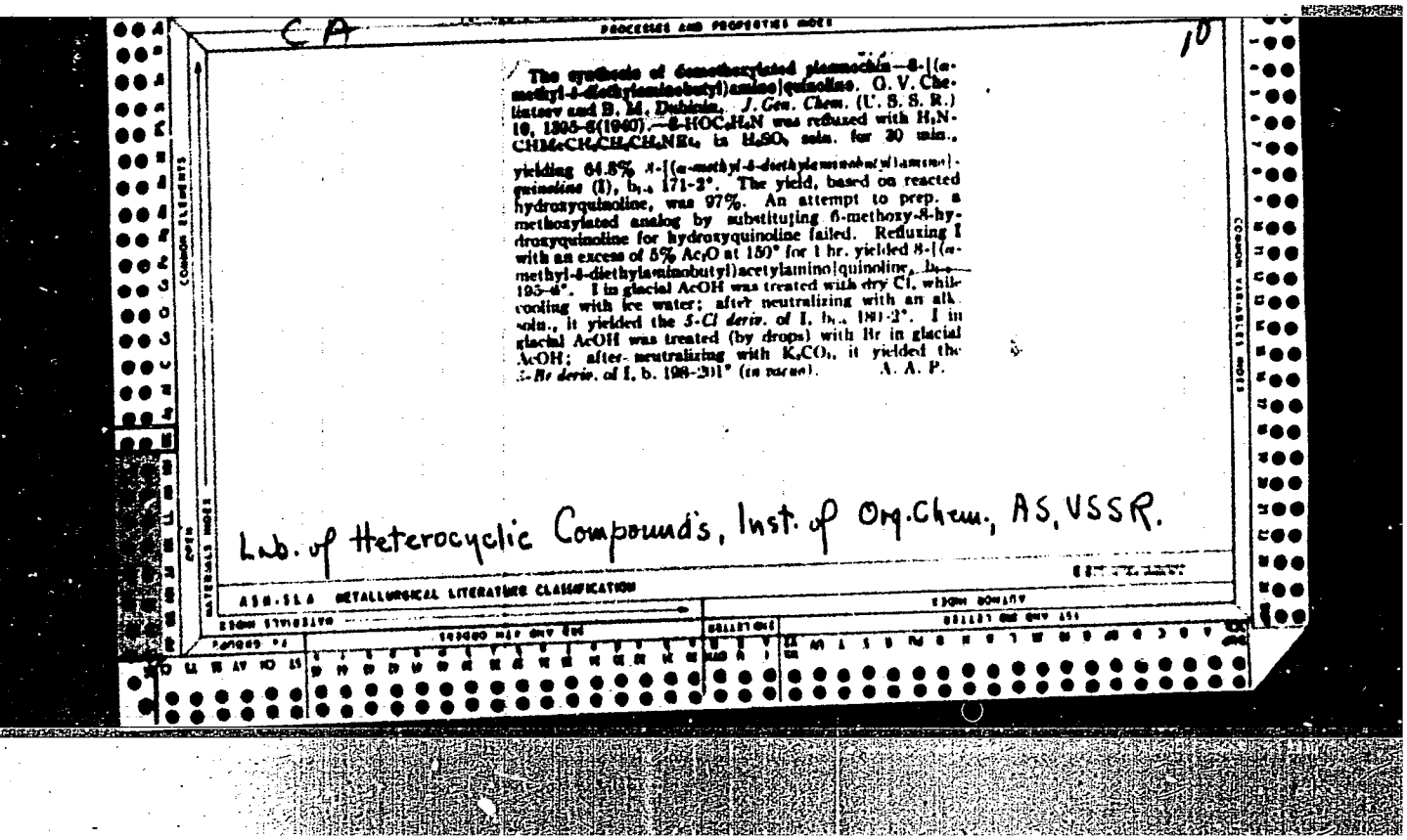
PROCESSES AND PROPERTIES INDEX

Ca

10

1-Phen[illegible]yrazolone. T. G. Aleksandrov, B. M. D[illegible], L. E. [illegible]'yants and G. V. Chelintsev. Russ. 57,[illegible], July 31, 1940. $PhNHNH_2 \cdot HCl$ is treated with the reaction product of AcOEt and Na.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION



CA

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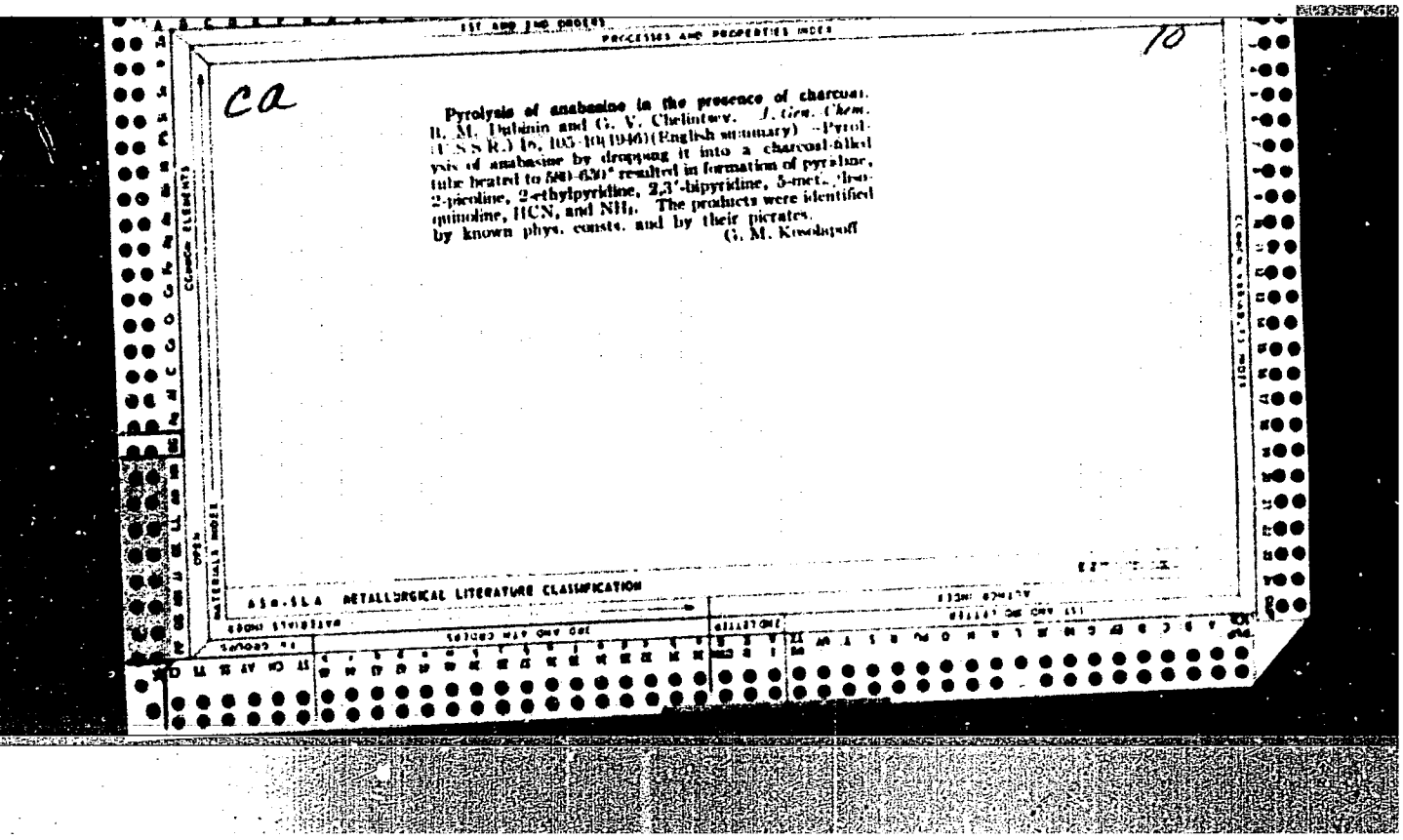
The synthesis of 6-methoxylated pianmochin—8-[(α-methyl-δ-diethylaminobutyl)amino]quinoline. O. V. Chelintsev and B. M. Dubinin. *J. Gen. Chem.* (U. S. S. R.) 10, 1205-6(1940).—8-HOC_9H_6N was refluxed with H_2N-$CHMe$-$CH_2CH_2CH_2NEt_2$ in H_2SO_4 soln. for 30 min., yielding 64.8% *N*-[(α-methyl-δ-diethylaminobutyl)amino]-quinoline (I), $b_{1.5}$ 171-2°. The yield, based on reacted hydroxyquinoline, was 97%. An attempt to prep. a methoxylated analog by substituting 6-methoxy-8-hydroxyquinoline for hydroxyquinoline failed. Refluxing I with an excess of 5% Ac_2O at 150° for 1 hr. yielded 8-[(α-methyl-δ-diethylaminobutyl)acetylamino]quinoline, $b_{1.5}$ 195-6°. I in glacial AcOH was treated with dry Cl, while cooling with ice water; after neutralizing with an alk. soln., it yielded the *5-Cl deriv.* of I, $b_{1.5}$ 181-2°. I in glacial AcOH was treated (by drops) with Br in glacial AcOH; after neutralizing with K_2CO_3, it yielded the *5-Br deriv.* of I, b. 198-201° (in vacuo). A. A. P.

Lab. of Heterocyclic Compounds, Inst. of Org. Chem., AS, USSR.



ca

10

Pyrolysis of anabasine in the presence of charcoal. B. M. Dubinin and G. V. Chelintsev. *J. Gen. Chem.* (U.S.S.R.) 16, 105-10(1946)(English summary).—Pyrolysis of anabasine by dropping it into a charcoal-filled tube heated to 580-630° resulted in formation of pyridine, 2-picoline, 2-ethylpyridine, 2,3'-bipyridine, 5-methylisoquinoline, HCN, and NH_3. The products were identified by known phys. consts. and by their picrates.

G. M. Kosolapoff

DUBININ, B. M.

Feb 1947

USSR/Chemistry - Alkylation
Chemistry - Ethylene

"The Phenomenon of Alkylation of Ethylencyanhydrine with Carbonium Ethers," G. V. Chelintsev, Z. V. Benevolenskaya, B. M. Dubinin, 4 pp

"Zhur Obshch Khim" Vol XVII, No 2

Ability of ethylencyanhydrime to alkylate to oxygen in the presence of alcoholates.

PA 15T42

DUBININ, B. M.

USSR/Chemistry - Acylenols
Chemistry - Pyrimidine

Feb 1947

"Some 'Acylenols'," G. V. Chelintsev, B. M. Dubinin, Z. V. Benevolenskaya, 5 pp

"Zhur Obshch Khim" Vol XVII, No 2

Methods of obtaining 'acylenols' (stable substances derived in pure form, readily obtainable and useful for various syntheses) and their use in the synthesis of pyrimidine compounds.

PA 15T43

DUBININ, B. M.

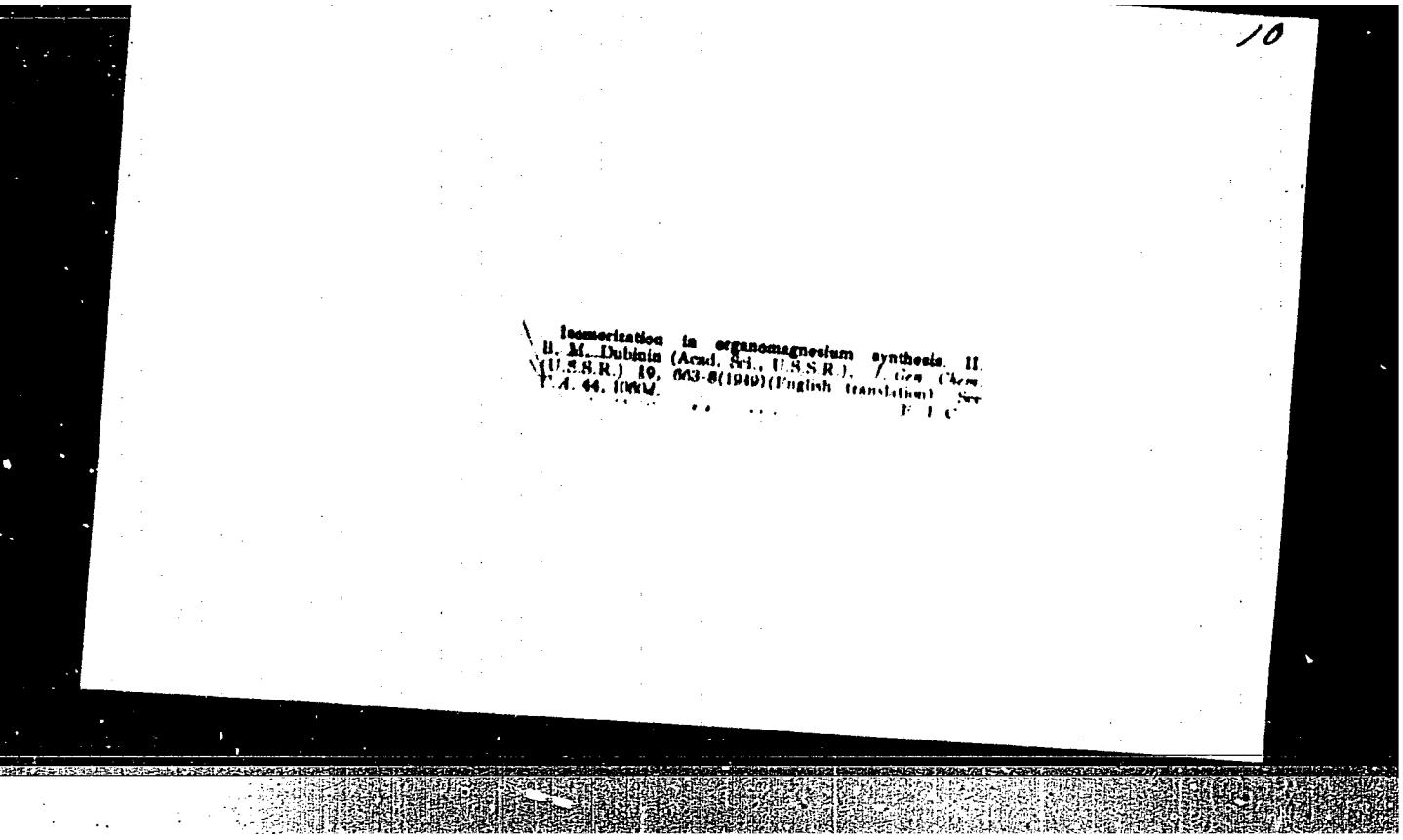
USSR/Chemistry - Hydroaromatic Compounds Dec 48
Nitration

"Separating Tertiary Butyl Groups From Aromatic Compounds," B. M. Dubinin, Lab of Heterocyclic Compounds, Inst of Org Chem, Acad Sci USSR, 3 3/4 pp

"Zhur Obshch Khim" Vol XVIII, No 12, pp 2145-48.

The compound formed in the nitration of 5-tert-butyl-2-hydroxy-1-methylbenzene and not trinitro-5-tert-butyl-2-hydroxy-1-methylbenzene as was indicated by Baur. Upon heating tertiary butylphenols and their ethers with HI, the tertiary-butyl group is replaced by hydrogen.

67/49131



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Isomerization in organomagnesium synthesis. II.
B. M. Dubinin (Acad. Sci., U.S.S.R.). J. Gen. Chem.
(U.S.S.R.) 19, 903-8(1949)(English translation) See
C. A. 44, 10[illegible]

Isomerizations in organomagnesium syntheses. II. H. M. Dubinin. *Zhur. Obshchei Khim.* (J. Gen. Chem.) 19, 695-700(1949); cf. C.A. 32, 510⁹.—Reaction of *tert*-BuI with *o*- and *m*-MeOC$_6$H$_4$MgBr leads to migration of the *tert*-Bu group to the para position with respect to the MeO group; this is specific for the *tert*-Bu group, while other alkyls yield the normal ortho or meta derivs. The reaction is very rapid and is believed to proceed via a radical mechanism, giving PhOMe and MeOC$_6$H$_4$Me by-products by accompanying disproportionation. Bromoanisole (0.1 mol.), 3 g. Mg, 80 ml. Et$_2$O, 2-3 drops (EtO)$_4$Si, and a crystal of iodine were allowed to form the Grignard reagent, the soln. decanted from the unused Mg, warmed with RI until the Michler ketone test was neg., treated with ice-HCl, and the products fractionated. *o*-MeOC$_6$H$_4$MgBr (I) and CO$_2$ gave *o*-*MeOC$_6$H$_4$CO$_2$H*, m. 99-100° (from MeOH); *m*-MeOC$_6$H$_4$MgBr (II) and CO$_2$ gave *m*-MeOC$_6$H$_4$CO$_2$H, m. 104-5° (from H$_2$O); I and Me$_2$SO$_4$ in Et$_2$O at 3-4° gave PhOMe and *o*-MeC$_6$H$_4$OMe, b. 169-71°; II gave PhOMe and *m*-MeC$_6$H$_4$OMe, b. 171-3°. II does not react with *tert*-BuI in Et$_2$O; addn. of the latter to II freed of solvent Et$_2$O led to rapid vigorous reaction giving 600 ml. gaseous products, which decolorized Br water, as well as 1.8 g. PhOMe, and 4.2 g. *p*-*tert*-*BuC$_6$H$_4$OMe*, b$_5$ 70-2°, which heated with III gave *p*-*tert*-BuC$_6$H$_4$OH, m. 99-100°, while nitration by fuming HNO$_3$ in Ac$_2$O gave 4,2,6-Me$_3$C(O$_2$N)$_2$C$_6$H$_2$OMe, m. 101-2°, contg. in the crude state a substance with musk odor, presumed to be a trace of the 3-*tert*-Bu isomer, which could not be isolated. Similar reaction of I with *tert*-BuI gave 4.1 g. PhOMe and 5.1 g. *p*-*tert*-BuC$_6$H$_4$OMe. II and BuI heated 6 hrs. on the steam bath (after Et$_2$O removal), then 5 hrs. at 140-5°, gave 3 g. *m*-*BuC$_6$H$_4$OMe*, b$_{10}$ 99-103°; similarly I gave 2.1 g. *o*-*isomer*, b$_{12}$ 121-3°, after 7 hrs. at 145-50°. II and allyl iodide in Et$_2$O (cold-ing, followed by 1.5 hrs. refluxing) gave 8.5 g. *m*-*allyl-anisole*, b$_5$ 70-1°, d_{25}^{25} 0.9780, n_D^{25} 1.5245. I and PhCH$_2$Cl react only after Et$_2$O removal, at the end of which a vigorous reaction occurs, yielding 1.3 g. *dibenzylanisole*, b$_3$ 193-6°, and 9.3 g. *o*-*benzylanisole*, b$_3$ 123-4°, m. 29-30° (from MeOH).

G. M. Kosolapoff

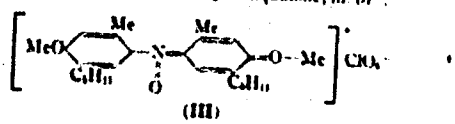
DUBININ, B. M.

"3-Methoxy-5-tert. butyl toluene." by B. M. Dubinin and N. E. Kochevnikova (p.662)

SO: Journal of General Chemistry (Zhurnal Obshchei Khimii) 1951, Volume 21, No. 4

Aromatic substances with musk odor. 2,6-Dinitro-4-tert-amyl-3-methoxytoluene. B. M. Dubinin. *Zhur. Obshchei Khim.* (*J. Gen. Chem.*) 21, 2170-4(1951).—Isoamylene (35 g.) added with cooling to 70 g. m-MeC_6H_4OMe and 8 g. $AlCl_3$ yielded after 24 hrs. at 0° a mixt. of products which on fractionation gave 37 g. *3-methoxy-4-tert-amyltoluene* (I), b_{15} 117-19°, m. 15°, d^{20} 0.9332, n^{20}_D 1.5066. This (19.2 g.) in 45 g. Ac_2O treated at −10° with 33.6 g. HNO_3 (d. 1.51) over 3 hrs. gave after steam distn. and crystn. from EtOH 2 products: (II), plates, m. 42°, with a strong musk odor, and odorless needles, m. 101°, of *4,6-dinitro-3-methoxytoluene*. II is *2,6-dinitro-3-methoxy-4-tert-amyltoluene*. Among the products distd. during the steam distn. was found some *tert-amyltoluquinone*, m. 57° (from EtOH). Nitration of 5 g. I in 20 ml. C_6H_6 with HNO_3 (d. 1.4) at 9° gave *6-nitro-3-methoxy-4-tert-amyltoluene*, m. 48° (from EtOH, after steam distn. of the above quinone). This (1 g.) in 23 ml. Ac_2O treated at −8° with 6 g. HNO_3 (d. 1.51), then with H_2O, extd with C_6H_6, and the ext. evapd. and mixed with ligroine gave *4,6-dinitro-3-methoxytoluene*, m. 101°, while the mother liquor after concn. and treatment with EtOH gave *2,6-dinitro-3-methoxy-4-tert-amyltoluene*, m. 41-2°. *tert*-Amyltoluquinone (0.25 g.) with 0.8 g. $PhNHNH_2$ in C_6H_6 gave much N and after brief warming and washing with dil. HCl yielded 0.1 g. *tert-amylhydroquinone*, m. 90° (from $CHCl_3$). This mixed with the corresponding quinone in $CHCl_3$ gave the blue *quinhydrone*, m. 91°. All methods of nitration of I yield some oxonium salt, which could be isolated only as a perchlorate; for best prepn., 5 ml. HNO_3 (d. 1.4) in 15 ml. AcOH was added to 5 ml. I in 15 ml. AcOH at 10-15 min. intervals at 30-5°; after cooling to 0°, 150 ml. 6% $HClO_4$ was added at once, the mass transferred to a fritted filter, the upper aq. layer decanted, the solid washed by suction with petr. ether to remove the nitro derivs., and the residue taken up in Me_2CO and pptd. [illegible] petr. ether, yielding crystals with golden sheen, of the quinoidal perchlorate of *2,2'-dimethyl[illegible]-di-tert-amyl-4,4'-dimethoxydiphenylhydroxylamine [illegible]ide*, $C_{24}H_{35}NClO_5 \cdot 3H_2O$ (III), m. 93-4° to

a blue liquid; solns. in ROH or Me_2CO are unstable. Boiled with 3% H_2SO_4 it yields *tert*-amyltoluquinone, m. 57°.



(III)

G. M. Kosolapoff

Formation of a complex between sulfur dioxide and phenol. L. I. Kushtanov and L. N. Sokolova (S. Ordzhonikidze Eng. Econ. Inst., Moscow). *Zhur. Obshchei Khim.* (*J. Gen. Chem.*) 31, 1484–6(1961); *J. Gen. Chem. U.S.S.R.* 31, 1619–23 (Eng. translation).—Passage of SO_2 into cold PhOH yields a ppd. complex which is quite unstable and can be isolated best by conducting the reaction in $CHCl_3$ at about −40°. The adduct, $(PhOH)_n.SO_2$, is yellow-green and decomp. in air into its components; in a desiccator it loses color in 3 days and changes from cubic to hexagonal crystals.

G. M. Kosolapoff

S/126/61/012/005/020/028
E073/E535

AUTHORS: Dubinin, E.L., Yesin, O.A. and Vatolin, N.A.

TITLE: Magnetic susceptibility of liquid alloys

PERIODICAL: Fizika metallov i metallovedeniye, v.12, no.5, 1961, 763-765

TEXT: The authors studied the isotherms of the magnetic susceptibility κ of Fe-Mn, Fe-P and Mn-Si melts by means of the Faraday method. To exclude the possible influence on the magnetic field, the heater was in the form of a bifilar graphite tube. The alloy was placed into quartz ampoules with small holes at the end (0.5 to 1.0 mm). The magnetic susceptibility of pure iron and of manganese were determined for substances placed into alundum crucibles. The ampoules were suspended to analytical scales. The measurements were carried out in an argon atmosphere, which was carefully purified of oxygen (0.009% O_2), applying an excess pressure. The temperature was maintained at 1400±10°C and was measured by a Pt/Pt Rh thermocouple. The magnetic field was maintained constant for each type of alloy within the limits of 400 to 7000 Oe. The ampoules were weighed at the temperatures of

the experiment in presence and in absence of the magnetic field. From the weight difference the pulling force and the magnetic susceptibility were calculated. As starting materials for the Mn-Si alloys studied (containing 0 to 50 wt.% Si) 99 99% purity Mn and crystalline (99.99%) Si were used, the weight of the charge being about 15 g and the magnetic field intensity 6900 Oe. All the alloys studied were paramagnetic at the test temperature. It was found that the curve of the dependence of the magnetic susceptibility on concentration has a slight kink at 34% Si corresponding to the compound MnSi. Similar kinks were obtained also in earlier studies of the e.m.f. in the system Mn-C-Si. Fe-Mn alloys were produced from carbonyl iron and electrolytic manganese. The charge was again 15 g and a magnetic field of 5300 Oe was used. At the test temperature all the alloys were paramagnetic; the susceptibility increases linearly with increasing iron content and this is attributed to the absence of chemical compounds. The Fe-P alloys were produced by adding ferrophosphor (containing 25% P) to carbonyl iron. The charge was 6 g, the magnetic field 4200 Oe. At the test temperature all the specimens were again paramagnetic

Magnetic susceptibility of ... S/126/61/012/005/020/028
E073/E535

The dependence of the susceptibility of the melts on concentration shows a kink at a P content of 22% corresponding to the compound Fe_2P, the presence of this kink is in agreement with earlier published data on e.m.f. The obtained results show that, at 1400°C, iron is a stronger paramagnetic than manganese. The values of magnetic susceptibility for pure iron at 1400°C agree with those obtained by Vertman A.A., and Samarin A.M. (Ref.2: DAN SSSR, 1960, 134, No.2, 1326). The kinks on the curves κ vs. composition of the Mn-Si and Fe-P alloys are attributed to a sharp rise of the rate of increase of covalent bonds. Up to a composition corresponding to chemical compounds a relatively small part of the electrons pair off and the compounds MnSi and Fe_2P are paramagnetic compared to pure Fe and Mn. After forming chemical compounds the number of paired electrons starts to increase rapidly and the paramagnetism of the alloys decreases sharply. A known confirmation of this is the fact that solid $MnSi_2$ is diamagnetic and FeP is less paramagnetic than Fe_2P. Thus, the curves of the dependence of the magnetic susceptibility on concentration for liquid Mn-Si and Fe-P alloys give additional

Card 3/4

information, indicating the existence in these alloys of atom groupings corresponding to the alloys MnSi and Fe_2P. There are 1 figure and 12 references: 8 Soviet-bloc and 4 non-Soviet-bloc. The English-language references read as follows: Ref.3: Nakagawa Y.J. Phys.Soc. Japan, 1956, 7, No.8; Ref.5: Secksmith W. Rearce R.R. Proc. Roy.Soc., 1938, 167, 189; Ref.12: Shu-Cuiba J. Phys.Soc. Japan, 1960, 15, No.4, 581.

ASSOCIATION: Institut metallurgii UFAN SSSR
(Institute of Metallurgy UFAS USSR)

SUBMITTED: May 5, 1961

DUBININ, E.L.; YESIN, O.A.; VATOLIN, N.A.

High-temperature melts of binary and pseudobinary systems on the basis of iron and manganese. Zhur.neorg.khim. 7 no.12:2778-2781 D '62. (MIRA 16:2)
(Iron-manganese alloys)

40679

S/126/62/014/002/013/018
E073/E535

19 9100,

AUTHORS: Dubinin, E.L., Yesin, O.A. and Vatolin, N.A.

TITLE: Concentration dependence of the magnetic susceptibility of some liquid alloys

PERIODICAL: Fizika metallov i metallovedeniye, v.14, no.2, 1962, 290-293

TEXT: In an earlier paper the authors discussed the results of measurements of the specific magnetic susceptibility κ_g of a number of carbon-free melts. Using the same measuring technique as before, the authors studied the dependence of κ_g on the composition of the following liquid alloys: Fe-P-C and Fe-C-Mn at 1400°C, Fe-Cr, Fe-C-Cr at 1400 and 1700°C, Fe-C at 1550°C and Mn-C at 1350 and 1550°C. The carbon-saturated alloys were produced from pig-iron made by smelting in graphite crucibles Armco iron, electrolytic manganese and the desired additions of other elements. 3-5 g charges of the samples to be investigated were placed in alundum crucibles and charged into the furnace. At this temperature all the alloys were paramagnetic. The composition of the alloys (wt.%) is given in the Table. The

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results are presented in the form of plots. Fig.1 shows the dependence of the magnetic susceptibility, $\kappa_g \cdot 10^6$, as a function of the contents (wt.%) of C and P: 1 - Fe-P; 1400°C; 2 - Fe-C-P, 1400°C; 3 - Fe-C, 1550°C; 4 - Mn-C, 1350°C; 5 - Mn-C, 1550°C; + - Fe-P, 1400°C calculated on the basis of the validity of the additive law. Fig.2 shows the dependence of the magnetic susceptibility, $\kappa_g \cdot 10^6$ as a function of the manganese and chromium contents (wt.%): 1 - Fe-Mn, 1400°C; 2 - Fe-Cr, 1400°C; 3 - Fe-C-Mn, 1400°C; 4 - Fe-C-Cr, 1400°C; 5 - Fe-Cr, 1700°C; 6 - Fe-C-Cr, 1700°C. There are 2 figures and 1 table.

ASSOCIATION: Institut metallurgii UFANa (Institute of Metallurgy, UFAN)

SUBMITTED: November 25, 1961 (initially)
April 21, 1962 (after revision)

Concentration dependence ... S/126/62/014/002/013/018
E073/E535

Composition of the alloys, wt.%

Fe—C	Fe—C—P		Fe—C—Mn		Mn—C	Fe—C—Cr		Fe—Cr
C	P	C	Mn	C	C	Cr	C	Cr
0,5	2,2	3,9	2,0	4,9	3,2	2,0	4,8	1,9
1,2	5,5	3,0	10,0	5,2	4,1	11,6	5,6	11,4
1,3	11,3	1,0	21,7	5,6	5,3	20,2	6,2	20,6
1,6	14,0	0,5	30,2	5,7	6,2	31,9	6,9	32,5
2,3	17,3	0,4	40,0	6,0	7,3	40,0	7,3	42,2
2,4	21,7	0,3	50,2	6,2	7,9	51,4	7,6	50,0
2,5	—	—	—	—	—	—	—	—
3,0	—	—	—	—	—	—	—	—
3,6	—	—	—	—	—	—	—	—
4,1	—	—	—	—	—	—	—	—
4,5	—	—	—	—	—	—	—	—

Card 3/4

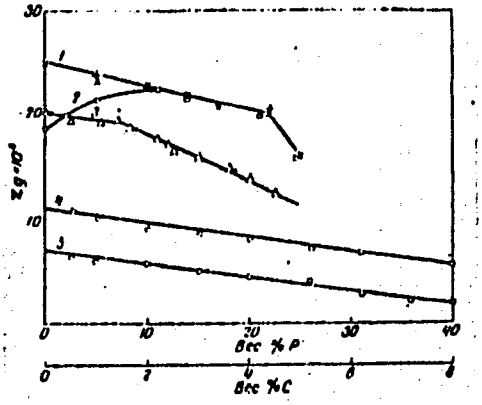

Fig.1

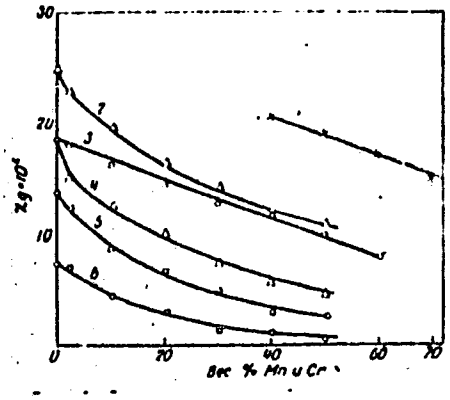

Fig.2

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S/126/62/014/004/016/017
E039/E435

AUTHORS: Dubinin, E.L., Yesin, O.A., Vatolin, N.A.

TITLE: Investigation of the magnetic susceptibility of Fe-Si, Fe-P, Mn-Si at high temperatures

PERIODICAL: Fizika metallov i metallovedeniye, v.14, no.4, 1962, 589-594

TEXT: As comparatively little work has been done on investigating the change in magnetic susceptibility χ_g at temperatures well above the paramagnetic Curie point Θ_p for metals melting at 1300 to 1500°C, the dependence is studied in both the solid and liquid state of χ_g on temperature for the above alloys and for the steel Х18Н9Т (Kh18N9T) (0.08% C, 0.45% Si, 0.83% Mn, 0.018% P, 0.015% S, 17.78% Cr, 9.98% Ni, 0.56% Ti) and Г13Л (G13L) (1.14% C, 0.73% Si, 11.80% Mn, 0.090% P, 0.011% S, 0.17% Cr, 0.18% Ni). The experimental method is as described in an earlier paper by the same authors. Armco iron, electrolytic manganese, crystalline silicon and ferro-phosphorus are used in preparing the alloys. Values of χ_g for Kh18N9T steel vary from 15.5×10^6 at 968°C to 13.8×10^6 at 1558°C and in the case of G13L steel from

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23.6 x 10^6 at 687°C to 15.5 x 10^6 at 1537°C. Curves showing the dependence of χ_g on composition at constant temperature have discontinuities at the points where the composition is equivalent to FeSi, Fe_2P and MnSi for the respective alloys. In general, the value of χ_g falls with increasing concentration of P and Si, although in the case of Fe-Si a maximum value of 45 x 10^6 for χ_g is obtained for ~9% Si (1200°C) falling to ~3 x 10^6 for 50% Si. The temperature dependence of $1/\chi_g$ is represented in each case by two straight lines corresponding to the solid and liquid states, showing that the Curie-Weiss law is obeyed in both conditions; different values of Θ_p are obtained for each state. In addition, the magnetic moment falls with increasing concentration of Si due to the strengthening of the covalent bonds. These results, which are in general agreement with those of other authors, provide additional information on the structure of these alloys and the nature of the intermolecular interactions.
There are 4 figures and 3 tables.

ASSOCIATION: Institut metallurgii UFAN SSSR (Institute of Metallurgy UFAN USSR)
SUBMITTED: May 9, 1962
Card 2/2

DUBININ, E.L.; YESIN, O.A.; VATOLIN, N.A.

Effect of electromagnetic forces on the removal of nonmagnetic inclusions in liquid iron. Fiz.met.i metalloved. 14 no.6:935-936 D '62. (MIRA 16:2)

1. Institut metallurgii Ural'skogo filiala AN SSSR.
(Steel—Inclusions) (Electromagnetism)

VATOLIN, N.A.; YESIN, O.A.; DUBININ, E.L.

Electric transfer of silicon, phosphorus, and sulfur in liquid cast iron and copper. Fiz. met. i metalloved. 19 no.4:634-636 Ap '65. (MIRA 18:5)

1. Institut metallurgii, Sverdlovsk.

ACC NR: AT7004214 (N) SOURCE CODE: UR/0000/66/000/000/0211/0218

AUTHORS: Dubinin, E. L.; Yesin, O. A.; Vatolin, N. A.

ORG: none

TITLE: Removal of nonmetallic impurities from liquid iron by electromagnetic forces

SOURCE: AN SSSR. Institut metallurgii. Eksperimental'naya tekhnika i metody vysokotemperaturnykh izmereniy (Experimental techniques and methods of high temperature measurement). Moscow, Izd-vo Nauka, 1966, 214-218

TOPIC TAGS: ELECTROMAGNETIC FIELD, LIQUID METAL, metallurgic research, iron, steel alloy, metal purification, metal melting/ ShKh-15 steel alloy

ABSTRACT: The possibility of removing nonmetallic impurities from liquid iron by an electromagnetic field was investigated. The experimental technique is an extension of the method developed by L. A. Verte (Tsvetnyye metally, 1961, No. 6, 61). A schematic of the experimental apparatus is presented (see Fig. 1). The method was tested on Armco iron and ShKh-15 steel specimens which were fused, saturated with oxygen, reduced with aluminum, and then purified in the above apparatus. The state of purification was determined metallographically. It was found that the rate of removing nonmetallic inclusions from the liquid specimens was improved when the lower electrode was charged positively; the rate was retarded when the latter was

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ACC NR: AT7004214

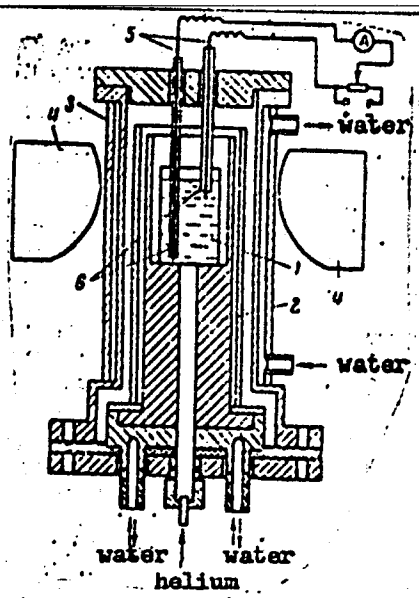

Fig. 1. Schematic of the experimental installation.
1 - alundum crucible; 2 - electrographite resistance furnace; 3 - water-cooled jacket; 4 - poles of electromagnet; 5 - tungsten electrodes; 6 - alundum tubes

charged negatively. Orig. art. has: 4 graphs.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 003

Card 2/2

KARMINSKIY, A.B.; BOGIN, N.M., kand. tekhn. nauk; KACHUR, S.I., inzh.; DUBININ, F.A., inzh.; VAKS, A.B., inzh.; DYNER, I.I.; ROSSIUS, L.V.

Reviews and bibliography. Transp. stroi. 15 no.4; 58-61 Ap '65. (MIRA 18:6)

1. Glavnyy spetsialist po zemlyanomu polotnu Dneprogiprotransa (for Karminskiy). 2. Glavnyy spetsialist po sanitarnoy tekhnike Gosudarstvennogo proizvodstvennogo komiteta po transportnomu stroitel'stvu SSSR (for Dyner). 3. Glavnyy energetik Volgobaltstroya (for Rossius).

ACC NR: AP6032170 SOURCE CODE: UR/0410/66/000/004/0129/0131

AUTHOR: Dubinin, F. D. (Leningrad)

ORG: none

TITLE: Physical models of continuous systems

SOURCE: Avtometriya, no. 4, 1966, 129-131

TOPIC TAGS: bionics, bioinstrumentation

ABSTRACT: Simulation of excitable biological structures by means of homogeneous neuron nets termed continuous systems (CS) is discussed. The design characteristics and the principle of operation of such CS models are described. It is assumed that the simplest of them possesses the following properties: 1) pulses excited in a CS are propagated in all directions at a constant velocity; 2) the pulse height is constant and exceeds the threshold of unexcited regions; and 3) each of the regions can be in any of the following three states: rest, activity, or refraction. Two CS models are considered in particular: one with optical and one with thermal transmission of excitation. The optical model (see Fig. 1,a) has three layers: The first two layers, a photoresistance (PhR) and a phosphor, form the memory element called optron. The third layer, termed posistor (P), is a thermistor with a positive temperature coefficient. All three layers are electrically in contact along the adjoining surfaces. Flat metallic electrodes are imbedded in the outer layers. The

Card 1/4 UDC: 681.142.68

ACC NR: AP6032170

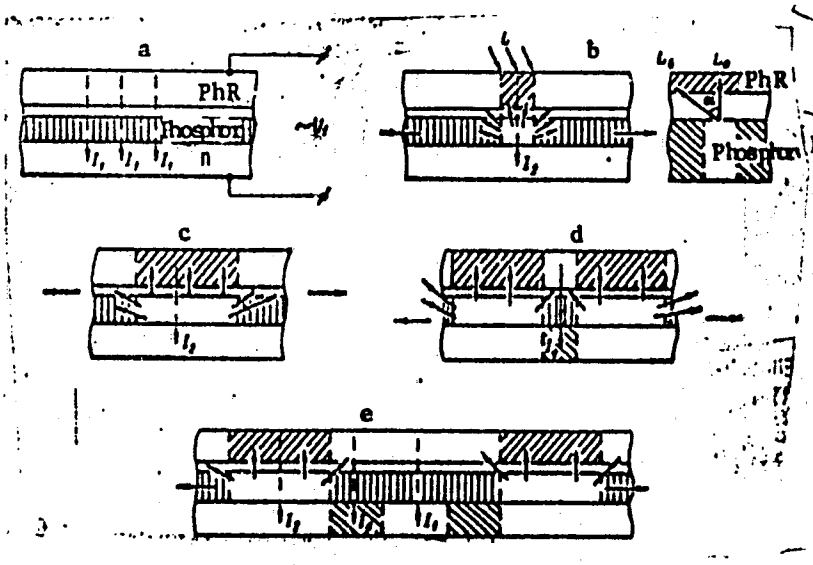

Fig. 1. Optical model

state of rest is characterized by a small current I_1 and a dark phosphor. A short (10—50 msec) light pulse with intensity L_2 (see Fig. 2) applied to the exposure zone (Fig. 1,b) shifts the operating point to position 3 (current I_2) and the optron lights up. After the external optical excitation has been cut off, the operating

Card 2/4

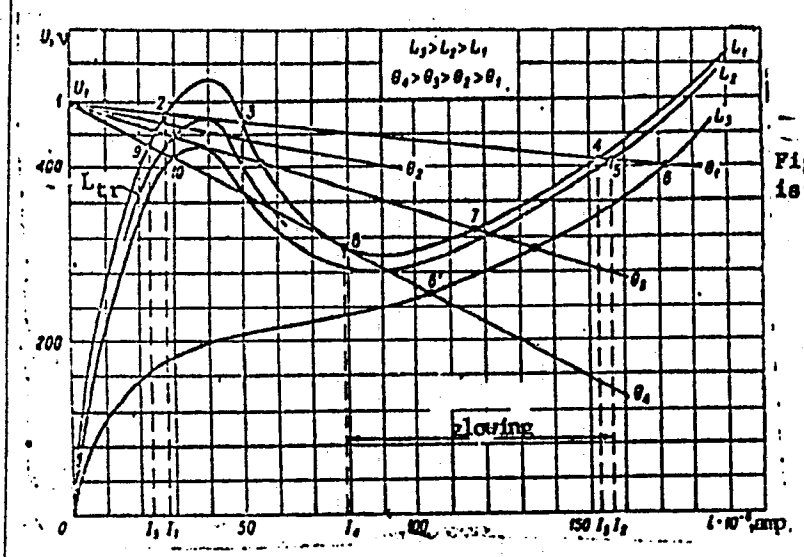

Fig. 2. Volt-ampere characteristic of the optical model

point is shifted to position 4 and the optron continues to glow. Light flux L_b from the electroluminescent layer also acts on the neighboring photoresistance regions (see Fig. 1,b) with intensity $L_0 \cos\alpha$. A section of the adjoining optron area where $L_b > L_{tr}$ (L_{tr} is the threshold illumination) will also light up. In that way the

ACC NR: AP6032170

effect of excitation spreading in all directions is produced after a light pulse is applied to a small area (see Fig. 1,c). However, because of the threshold effect of current I_3 the posistor warms up releasing heat Q, and its characteristic successively assumes positions 1—4, 1—7, and 1—8, while the operating point passes abruptly into stable position g and the optron goes out (see Fig. 1,d). The current drops sharply, the posistor begins to cool off, its resistance drops, and the operating point returns to position 2 (see Fig. 1e). The cool-off time determines the refraction time. The volt-ampere characteristic of the thermal model is analogous to that of the optron. The joining of two flat layers (thermistor and posistor) produces the thermal model. Orig. art. has: 3 figures. [WA-81]

SUB CODE: 06/ SUBM DATE: 18Sep65/ ORIG REF: 006/ OTH REF: 001

Card 4/4

DUBININ, F.D., inzh.; GENKIN, B.M., inzh.

Organizing of assembly-line operations in the manufacture of stator windings. Vest. elektroprom 34 no.6:49-52 Je '63. (MIRA 16:7)

(Electric machinery—Windings)
(Assembly-line methods)
(Electric machinery industry)

ACC NR: AP6032170 SOURCE CODE: UR/0410/66/000/004/0129/0131

AUTHOR: Dubinin, F. D. (Leningrad)

ORG: none

TITLE: Physical models of continuous systems

SOURCE: Avtometriya, no. 4, 1966, 129-131

TOPIC TAGS: bionics, bioinstrumentation

ABSTRACT: Simulation of excitable biological structures by means of homogeneous neuron nets termed continuous systems (CS) is discussed. The design characteristics and the principle of operation of such CS models are described. It is assumed that the simplest of them possesses the following properties: 1) pulses excited in a CS are propagated in all directions at a constant velocity; 2) the pulse height is constant and exceeds the threshold of unexcited regions; and 3) each of the regions can be in any of the following three states: rest, activity, or refraction. Two CS models are considered in particular: one with optical and one with thermal transmission of excitation. The optical model (see Fig. 1,a) has three layers: The first two layers, a photoresistance (PhR) and a phosphor, form the memory element called optron. The third layer, termed posistor (P), is a thermistor with a positive temperature coefficient. All three layers are electrically in contact along the adjoining surfaces. Flat metallic electrodes are imbedded in the outer layers. The

Card 1/4 UDC: 681.142.68

ACC NR: AP6032170

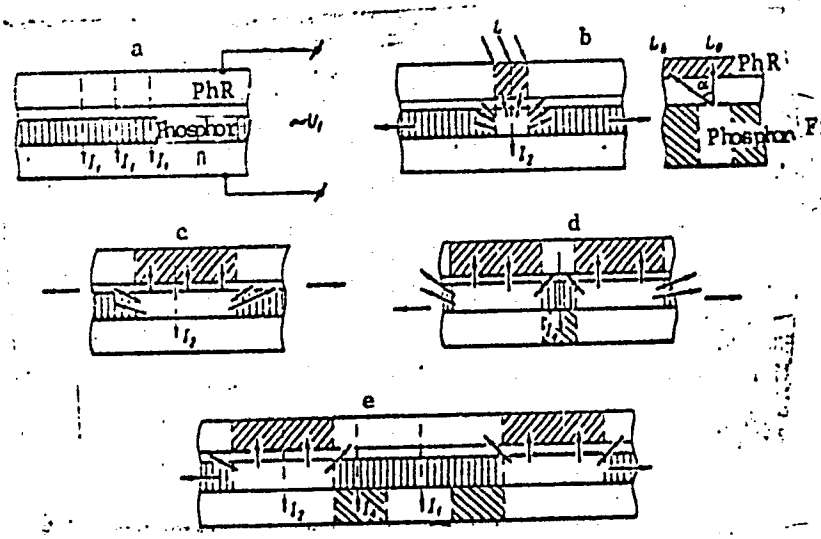

Fig. 1. Optical model

state of rest is characterized by a small current I_1 and a dark phosphor. A short (10—50 msec) light pulse with intensity L_2 (see Fig. 2) applied to the exposure zone (Fig. 1,b) shifts the operating point to position 5 (current I_2) and the optron lights up. After the external optical excitation has been cut off, the operating

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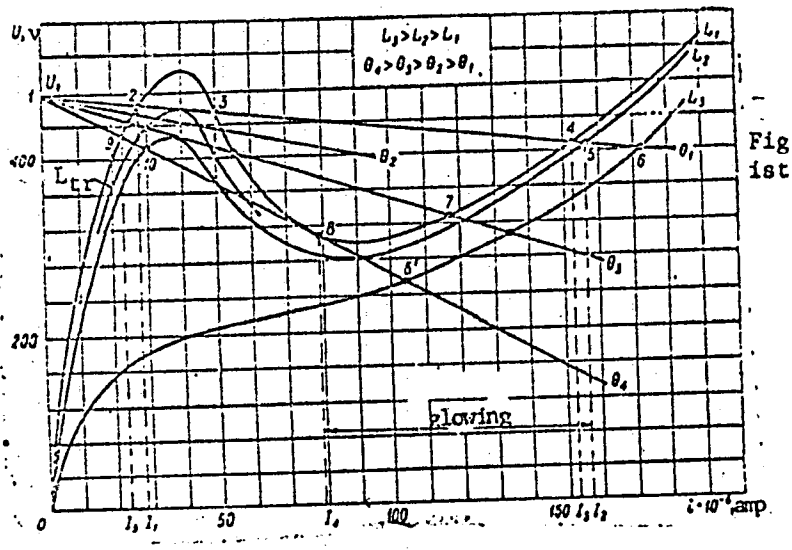


Fig. 2. Volt-ampere characteristic of the optical model

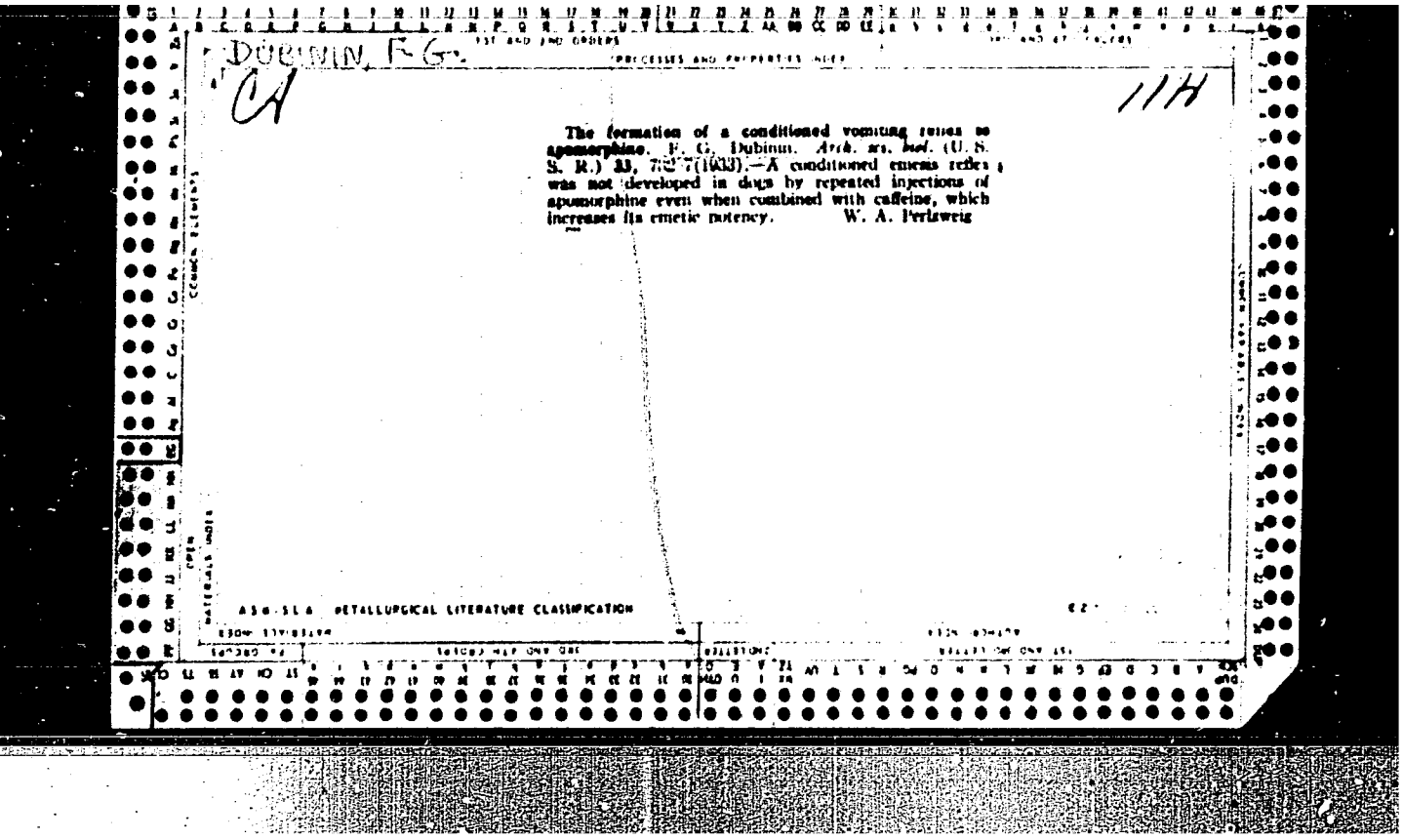
point is shifted to position 4 and the optron continues to glow. Light flux L_b from the electroluminescent layer also acts on the neighboring photoresistance regions (see Fig. 1,b) with intensity $L_0 \cos\alpha$. A section of the adjoining optron area where $L_b > L_{tr}$ (L_{tr} is the threshold illumination) will also light up. In that way the

ACC NR: AP6032170

effect of excitation spreading in all directions is produced after a light pulse is applied to a small area (see Fig. 1,c). However, because of the threshold effect of current I_3 the posistor warms up releasing heat θ, and its characteristic successively assumes positions 1—4, 1—7, and 1—8, while the operating point passes abruptly into stable position g and the optron goes out (see Fig. 1,d). The current drops sharply, the posistor begins to cool off, its resistance drops, and the operating point returns to position 2 (see Fig. 1e). The cool-off time determines the refraction time. The volt-ampere characteristic of the thermal model is analogous to that of the optron. The joining of two flat layers (thermistor and posistor) produces the thermal model. Orig. art. has: 3 figures. [WA-81]

SUB CODE: 06/ SUBM DATE: 18Sep65/ ORIG REF: 006/ OTH REF: 001

Card 4/4



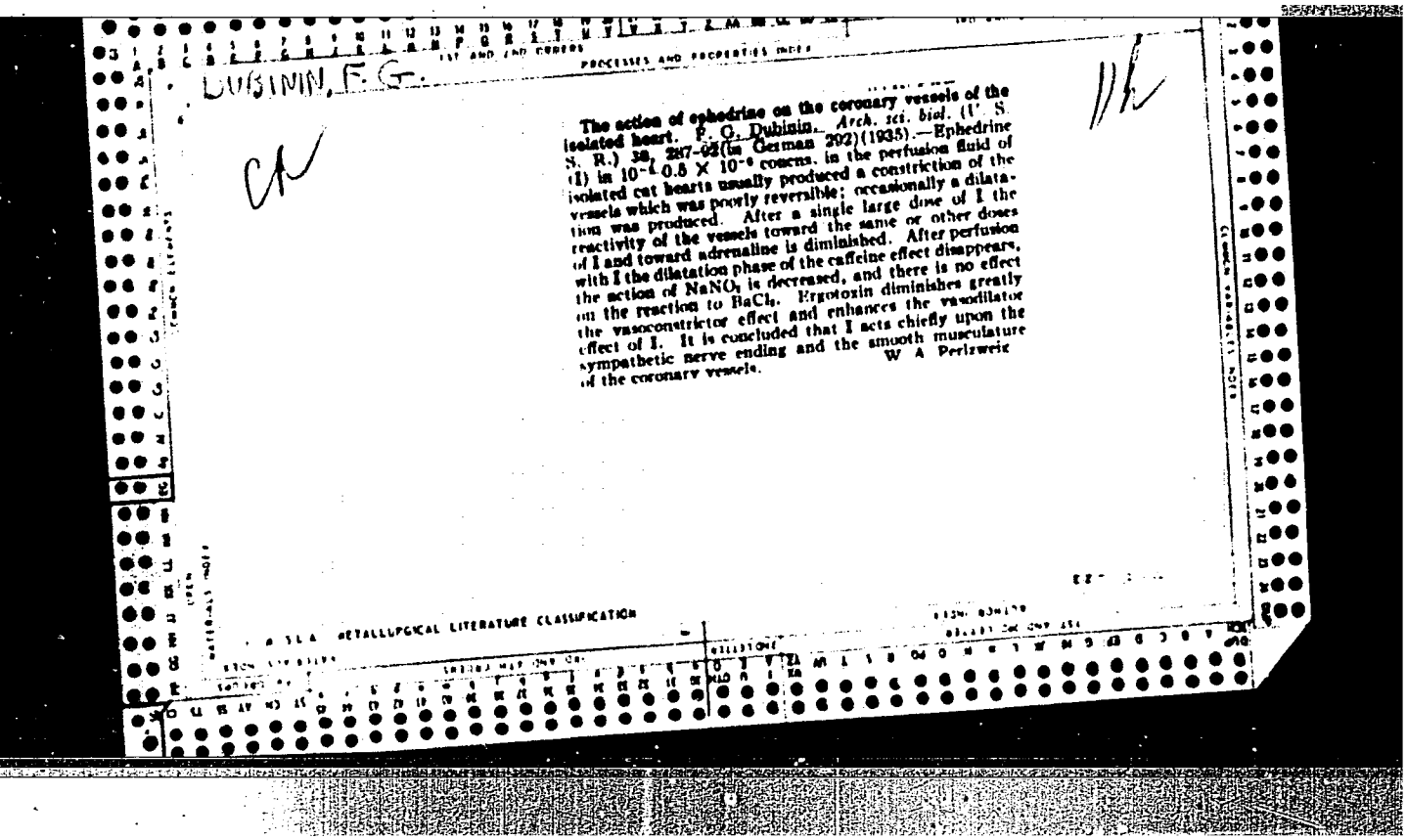
DUBININ, F. G.

CA

11H

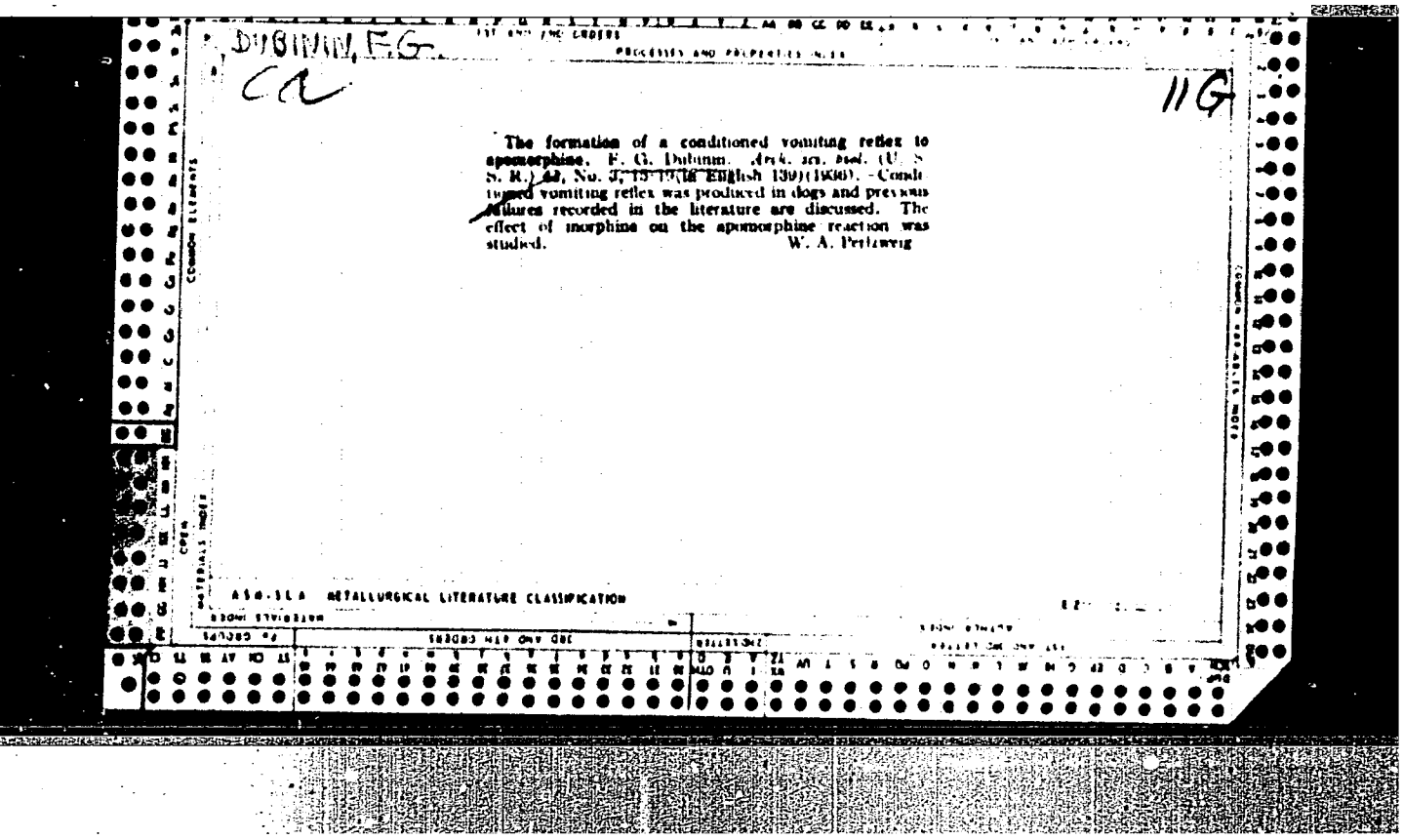
The formation of a conditioned vomiting reflex to apomorphine. F. G. Dubinin. *Arch. sci. biol.* (U. S. S. R.) **33**, 752-7(1933).—A conditioned emesis reflex was not developed in dogs by repeated injections of apomorphine even when combined with caffeine, which increases its emetic potency. W. A. Perlzweig

A50-51A METALLURGICAL LITERATURE CLASSIFICATION



DUBININ, F. G.

The action of ephedrine on the coronary vessels of the isolated heart. F. G. Dubinin. *Arch. sci. biol.* (U. S. S. R.) 38, 287-95 (in German 292) (1935).—Ephedrine (I) in 10^{-4} 0.8×10^{-6} concns. in the perfusion fluid of isolated cat hearts usually produced a constriction of the vessels which was poorly reversible; occasionally a dilatation was produced. After a single large dose of I the reactivity of the vessels toward the same or other doses of I and toward adrenaline is diminished. After perfusion with I the dilatation phase of the caffeine effect disappears, the action of $NaNO_2$ is decreased, and there is no effect on the reaction to $BaCl_2$. Ergotoxin diminishes greatly the vasoconstrictor effect and enhances the vasodilator effect of I. It is concluded that I acts chiefly upon the sympathetic nerve ending and the smooth musculature of the coronary vessels.
W. A. Perlzweig



DUBININ, F.G.

CA

11G

The formation of a conditioned vomiting reflex to apomorphine. F. G. Dubinin. *Arch. sci. biol. (U. S. S. R.)* 62, No. 3, 15-19 (in English 139) (1956). - Conditioned vomiting reflex was produced in dogs and previous failures recorded in the literature are discussed. The effect of morphine on the apomorphine reaction was studied. W. A. Perlzweig

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION